DOCUMENT RESUME

ED 181 975 JC 800 112

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TITLE An Evaluation of the No-Pass Grading Practices at Brevard Community College.
PUB DATE 79
NOTE 180p.; Ed.D. Dissertation, Nova University

EDRS PRICE MF01/PC08 Plus Postage.
DESCRIPTORS Academic Achievement: Academic Probation; *Academic Standards; Community Colleges; Evaluation Criteria; Full Time Students; Grade Inflation; *Grade Point Average; *Grades (Scholastic); *Grading; *Junior Colleges; Literature Reviews; Part Time Students; School Surveys; Student Evaluation; *Teacher Attitudes

ABSTRACT

A research project was conducted at Brevard Community College, Florida, to evaluate the influence of non-punitive grading (i.e., I for incomplete and W for withdrawal) on student grade point averages (GPA's) and to determine faculty attitudes toward the factors which influence the GPA and students' eligibility for academic performance categories such as honor rolls and probation lists. The 29,580 grades assigned to 9,946 students at the end of Winter 1979 were used in the study. Traditional GPA's, not influenced by I or W grades, were compared against Term Progress Indexes (TPI's), in which I's, W's, and F's carried a grade point value of zero. The study revealed that 23.8% of all semester hours did not enter into the calculation of the students' GPA's, and that the average GPA was 3.02, while the average TPI was only 2.30. Further, the use of the TPI caused a statistically significant change in the number of students in each academic performance category. Results of an instructor survey, based on a 68% return rate, indicated that the majority of the teachers used criteria-referenced grading methods and that there were several areas of disagreement between present grading policies and the preferences of the instructors. The study report includes a review of the literature and summary conclusions and recommendations. (Author/JP)

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An Evaluation of the No-Pass Grading Practices at Brevard Community College

JAMES L. WHITNEY

A MAJOR APPLIED RESEARCH PROJECT
PRESENTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF DOCTOR OF EDUCATION

NOVA UNIVERSITY

1979

JC 800 112

U.S. DEPARTMENT OF HEALTH,
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ACKNOWLEDGEMENTS

The writer wishes to express his appreciation to the project committee members who provided assistance and guidance during the course of the study: Dr. Max R. Raines, Dr. Robert L. Breuder and Dr. Edgar B. Cale. A special thanks to Dr. A. Perkins Marquess and Mr. Owen W. McDowell, who made it possible to obtain the data needed for the study, and to Dr. Arthur D. Pollock, who reviewed the manuscript. Thanks is given to my life-mate and co-professional, Gloria D. Whitney, for her encouragement during the three years of my doctoral program.

This study is dedicated to my father, James L. Whitney, Sr. who encouraged me to pursue a career in postsecondary education.

Abstract of a Major Applied Research Project Presented to Nova University in Partial Fulfillment of the Requirements for the Degree of Doctor of Education.

AN EVALUATION OF THE NO-PASS GRADING PRACTICES AT BREVARD COMMUNITY COLLEGE

By

James L. Whitney

November, 1979

During the nontraditional movement of the 1960's and early 1970's, Brevard Community College added several nonpunitive features to its otherwise traditional grading practices. While it was recognized that the changes made in the grading policy would have an influence on students' grade point averages, no changes were made in the method used to compute these averages or in the use of the grade point average as the criteria for the selection of students for special recognition or treatment. This study was designed to describe and evaluate the no-pass grading practices of this college.

The 29,580 grades assigned in the credit courses of Brevard Community College at the end of the Winter Term (January - May) of 1979 were used to construct the term letter-grade profile. The distribution of the 9,946 students, enrolled during the Winter Term, among the four achievement classifications used by this college was compared with the number who would be in each category if all credit hours for which each student had registered were used in computing the term academic average rather than the hours attempted as defined by the present grading policy. In addition, the 202 full-time faculty members were surveyed to determine the methods they employed to assign the term's grades and the instructors' preferences for various grading policies.

The study was organized around eleven research questions and Chi-square was used to test five hypotheses. The term letter grade distribution was "U" shaped. The most frequently assigned grade was "A" and the least used letter was "F." No-pass grades ("F," "I" and "W") were recorded for 25.8% of the credit hours. The "assigned" term grade point average was 3.02 and the distributions of students' grade point averages were positively skewed. The use of the hours of registration, rather than the hours attempted, to compute the term academic average caused a significant (.01 level) change in the number of students in each course load and scholarship classification. The majority of the instructors responding to the survey reported they used criterion referenced grading techniques and several areas of disagreement between present grading policies and the modal preferences of the faculty members were observed.

It was recommended that if attempts are made to influence the pattern of assigned grades at Brevard Community College, these efforts should be directed toward defining and implementing college-wide standards of achievement for

the grades assigned in each course. It was concluded that at Brevard Community College, the usefulness of the grade point average as a measure of academic quality is seriously limited and the use of the probation and suspension lists to identify marginally achieving students is ineffective. It was recommended that a "term progress index" based on the hours of registration be used to identify students who are having achievement problems and that the college should contact these students to advise them of the counseling and remedial programs that are available to help them attain their educational goals. It was recommended that the Faculty Senate review the areas of disagreement between the present grading policy and the policy preferences of the instructional faculty members.

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Chapter 1

INTRODUCTION

Background and Rationale

The Brevard Community College grading policy, as approved by the Board of Trustees, is published in the College Catalog 1979-81 (Appendix A). The policy described is a traditional "A" - "F" system in which "I" and "W" grades are not included in the computation of students' grade point averages. All academic classifications defined in the policy are based on term and cumulative grade point averages. Full-time students who achieve a term grade point average of 3.25 or higher are placed on the Dean's List and the names of the part-time students with an average of 3.50 or higher are entered on the honors list. Students with low grade point averages are placed on academic probation or are suspended. The "I" grade is the traditional incomplete which may be changed to another letter grade after the student has completed the course requirements. The "W" grade is described as a withdrawal, and is recorded when a student voluntarily withdraws or is administratively withdrawn from a course (BCC Catalog 1979-81:26). Students may voluntarily withdraw by completing a formal withdrawal application and filing it with the Office of the Registrar prior to the date published in the college calendar which is approximately two weeks before the end of each regular term. Beginning in

1971, and continuing through the Winter Term of 1979, instructors also assigned the "W" as a final course grade.

In addition to the liberal withdrawal provisions, the grading policy allows students to remove failing grades through the repetition of courses. If a course in which a "D" or "F" grade was received is repeated, only the most recent grade is included in the computation of the grade point average (BCC Catalog 1979-81:27). Even though it was recognized that these nonpunitive provisions would have a significant influence on term and cumulative grade point averages, no changes were made in the method used to compute these averages or in the use of the grade point average as the criteria for the selection of students for special recognition or treatment. While it was noticed that the number of students given recognition for outstanding achievement (Dean's and honors lists) increased and the length of the probation and suspension lists decreased (Taylor, 1978), until this study, no longitudional data were compiled. Table 1 displays the changes that have occurred in the percentage of the total credit enrollment in each of the four achievement categories over the past ten years.

Table 1

Percentage of the Credit Enrollment by Achievement Category

Achievement Category	Winter Term 1968	1973	1978
Dean's List	4.9%	9.5%	11.0%
Honors list	4.0%	8.0%	11.6%
Probation	4.4%	1.1%	1.1%
Suspension	4.3%	1.6%	0.2%
Credit enrollment	5,670	7,203	9,761

At this college, the grade point average is determined by multiplying the number of credit hours for a course by the grade point value of the final letter grade. For this purpose, an "A" is worth 4 points, a "B" - 3 points, a "C" - 2 points, a "D" - 1 point and all the no-pass grades ("F," "I" and "W") are valued at zero points. The credit hours for all courses passed, plus those for which "F" grades were recorded, are added to determine the hours attempted. The grade point total is divided by the hours attempted to produce the grade point average. The hours attempted total is used to designate full-time or part-time status for the purpose of the Dean's List and honors list and to determine the blocks of courses over which probation and suspension computations are made. The grade point average is based on the hours attempted total, which at this and many other colleges, can be less than the hours of registration; consequently, the grade point average does not accurately reflect the degree of achievement in reference to the credit hours for which the student was registered. This difficulty is compounded when, as at Brevard Community College, a combination of punitive grades (which are included in the hours attempted total) and nonpunitive grades (which are excluded from the hours attempted total) are at the disposal of the instructional faculty.

The weakness of the grade point average as a measure of student progress is illustrated by the following grade reports selected from the Winter Term of 1979.

Student No. 1

Course	Grade	Hours Attempted	Grade Points
Communications 1	B	3	9
Practical Logic	W	0	0
General Psychology	I	0	0
College Study Skills	W	0	0
		3	9

GPA = 3.00

Student No. 2

Course	Grade	Hours Attempted	Grade Points
Communications 1	W	0	0
Humanities 1	F	3	0
Humanities 2	F	3	0
Real Estate Principles	B	3	9
		9	9

GPA = 1.00

Each of the students received a "B" in one course, each earned three semester hours of credit, and each received three no-pass grades. While both students had registered for 12 semester hours, the credits of the courses for which nonpunitive ("I" and "W") grades were assigned were not included in the hours attempted total used in the determination of the term grade point average. The nine grade points awarded for the "B" were divided by the hours attempted total (three for one student, nine for the other). During their first term at Brevard Community College, both were successful in only one of four courses, but neither would have received the attention of the college counselors. Under the grade averaging formula in use at this college, students are eligible for the probation list only when the hours attempted total equals 12 or more. However, if the second student had been assigned another "F" in place of the "W," the hours attempted total would have been 12, the GPA would have been 0.75, and the student's name would have appeared on the probation list.

The higher the proportion of nonpunitive to punitive no-pass grades being assigned, the less sensitive the grade point average becomes as a measure of student progress. Since the majority of the no-pass grades now being recorded at Brevard Community College are "I's" and "W's" (Whitney, 1979), it would appear that when no-pass grades are involved, the hours attempted total and the grade point average as measures of academic progress, are sericusly contaminated.

At the present time, the value of the grade point average at this college is frequently a function of the type of no-pass grades collected, rather than the degree of success (hours earned) achieved by the student. The term progress index (TPI) presented in this study, is a measure of achievement in terms of the grade points earned and the hours of registration. For the grade report examples given above, the hours of registration totals would have been 12, regardless of the type of no-pass grades received; consequently, the TPI value for both students would have been 0.75, and both would have been brought to the attention of the college counselors.

It is not proposed that the term progress index (TPI) be substituted for the grade point average (GPA) on the term grade reports or on students' cumulative records. Nearly all colleges exclude some final grades from the computation of the grade point average (usually "I" and "W"), some exclude all no-pass grades and a few do not average their letter grades (Collins & Nickel, 1974). Most graduate schools recompute the undergraduate GPA's of their applicants to compensate for the variations in grade processing practices among the colleges (Hofeller, 1971). The term progress index, as presented in this report, could be used whenever a comprehensive measure of student progress is needed.

At the present time, at Brevard Community College, there is no valid way to identify all of the enrolled students in need of academic remediation, diagnostic testing and/or counseling. While the students who are placed on probation or suspension are those with low achievement records, the Dean of Student Services, agrees that large numbers of other students with equally low achievement records avoid these conditions because "I" and "W" rather than "F" grades were recorded (Taylor, 1978). At colleges where the majority of no-pass grades have been eliminated from the grade point average, it is possible for a student to continue to enroll, pass few or no courses, and still avoid being placed on academic probation and thus escape the attention of the student personnel workers. The transcripts of several Brevard Community College students who have "persisted without progress" are displayed in Appendix B.

There is good evidence that college-initiated, intervention counseling combined with remediation, can assist the non-traditional student (Adams, 1974; Johnson, 1979; Montes, 1976; Reimanis, 1973). Johnston and Avila (1977) found that high-risk students graduated only half as frequently from traditional community colleges as from nonpunitive colleges; however there were no differences in subsequent academic performance of such students in senior institutions. This study identified the proportion of credit hours of registration that were not earned (instructional inefficiency) during the Winter Term of 1979, and focused on the development of a machine-processable index that could be used to identify the students whom the services and programs of this college may enable to not only persist, but to progress toward their educational objectives.

A program of placement testing and counseling for new students was tested on the Melbourne Campus during the past year, and a college-wide program will be implemented beginning with the Fall Term of 1979. The goal of this program is to reduce the failure and drop-out rates of students during their first term in college. The test validity studies made during the Melbourne pilot program, were based on Pearson product-moment correlations between the test scores and students' term grade point averages (Nicholson, 1979). The grade point average, as it is now being computed, includes all semester hours passed, but only a few of the no-pass credit hours. For example: during the Winter Term of 1978, only 8.8% of the instructor-assigned, end-of-term, no-pass grades were "F's" (the only no-pass grade reflected in the GPA). Since the hours being excluded from the computation of the grade point average are, in every case, at the no-pass end of the grade scale, the heterogeneity of the grade point distribution is being reduced. As shown by Anastasi (1968:92-93), this will have a serious influence on the value of the correlation coefficient. Guilford (1965:341-342) discusses the problem of applying a predictive index (correlation) derived from one group to other groups with different ranges of performance. The problem becomes particularly acute when the primary variable that one is attempting to predict (in this case, the tendency to terminate a course with a no-pass grade) has largely been eliminated from the normative group. While the test has been correlated with GPA's which include passing and "F" grades, it is the validity to predict all achievement outcomes that is important for an academic placement test. The term progress index, as described in this paper, could be used as an unrestricted performance measure against which to validate the placement test. It is also likely that the TPI, rather than the GPA, should be used in most institutional research studies which require a measure of student progress.

In general, the data presented in this study will enable the faculty senate and college administration to evaluate the effectiveness of the present grading system and to make recommendations concerning changes that may be needed to provide a more accurate measure of student achievement, to meet the perceived needs of the instructional faculty, and to assist in the identification of marginally performing students who might benefit from the remedial and counseling services available at this college. Many authors report that grading practices, particularly the type of no-pass grades assigned, and the method of processing no-pass grades, have a significant influence on students' persistence in college (Coffey, 1977; Noffsinger, 1975; Smith, 1969; Thayer, 1971). Consequently, during this time of declining enrollment, it is particularly important to review the college's no-pass grading practices.

Statement of the Problem

Purpose of the Investigation

This project generated a profile of the letter grades being assigned in the credit courses of this college. The variety of grading methods being employed by the faculty members was determined, and the instructional faculty's preferences for various grading methods and grade processing procedures were documented. The validity of the grade point average (as being computed at BCC) as a measure of academic progress was evaluated, and the use of a term progress index, based on all the classes for which a student had registered, was proposed.

Research Questions and Hypotheses

Grade profile. The final grades assigned by the instructors of the credit courses for the Winter Term of 1979 were tabulated.

Research question 1. In terms of the number of credit hours for which each letter grade was assigned, what were the characteristics of the term grade distribution?

Research question 2. What was the percentage of pass and no-pass grades and credit hours?

Research question 3. Of the credit hours for which students received term grades, what percentage did not have an influence on the term grade point averages?

Student achievement. Each student's term grade point average (GPA) was computed according to the current college policy and frequency distributions were made for the full-time, part-time and less-than-part-time students. In addition, the number of students who terminated one or more courses with "I" and/or "W" grades are shown for each GPA interval. Similar distributions were constructed for the term progress index (TPI).

Research question 4. What proportion of the students on the Dean's List received one or more "I" and/or "W" grades?

Research question 5. What proportion of the students on the honors list received one or more "I" and/or "W" grades?

Research question 6. Was there a difference in the proportion of the students classified full-time, part-time and less-than-part-time at the beginning of the term who received "I" and/or "W" grades in all their courses?

Hypothesis 6. There is no significant difference in the proportion of students classified full-time, part-time and less-than-part-time at the beginning of the term who received "I" and/or "W" grades in all their courses.

Credit load classification. The students were classified as full-time, part-time and less-than-part-time, based on the hours attempted total used in the calculation of the term grade point average (GPA) and the hours attempted total used to determine the term progress index (TPI).

Research question 7.	Will the use of the TPI, rather than the GPA, produce a significant change in the credit load classification of the students?
Hypothesis 7.	There is no significant difference in the proportion of students classified full-time, part-time and less-than-part-time based on the hours attempted total (GPA base) and the hours of registration (TPI base).

Scholarship classification. The number of students who would receive recognition for outstanding achievement, the number who would be performing at an average level, and the number who would be achieving at the probation and suspension levels were recorded for the term grade point average (GPA) and the term progress index (TPI).

Research question 8.	Will there be a significant change in the number of students in the various scholarship classifications, if the evaluations are made using the TPI rather than the term GPA?

Hypothesis 8a. There is no significant difference in the proportion of the full-time students who would be placed on the Dean's List, or in the proportion who would be considered to be achieving at an average, probation or suspension level for the two performance indexes.

Hypothesis 8b. There is no significant difference in the proportion of the part-time students who would be placed on the honors list, or in the proportion who would be considered to be achieving at an average, probation or suspension level for the two performance indexes.

Research question 9. Will there be a significant change in the number of less-than-part-time students at each grade performance level according to the use of the GPA or TPI?

Hypothesis 9. There is no significant difference in the proportion of the less-than-part-time students who achieved at each grade level for the two performance indexes.

Faculty preferences. The full-time instructional faculty was surveyed to determine their preferences regarding grading methods and grade processing procedures.

Research question 10. What are the preferences of the majority of the full-time faculty members regarding the use of the various no-pass grades, the methods of computing GPA's and the use of the academic achievement categories?

Research question 11. What grading techniques are being used by the full-time faculty?

Procedures

A questionnaire concerning grading methods, summary procedures and academic classifications (Appendix C) was distributed to the instructional faculty during the last week of the Winter Term of 1979. The profile of assigned grades in the credit courses and the frequency distributions of the students' term grade point averages were constructed from the term grade reports and grade assignment tabulations routinely produced by the data processing department at the end of each term. The term progress index distributions were developed by modifying the computer program used to produce the student grade reports, then reprocessing the term grade file. Statistical comparisons were made between the grade point average (GPA) and term progress index (TPI) distributions. The historical data was derived from the files of the registrar, the comptroller and the published annual reports of Brevard Community College.

Assumptions

Although the specific courses taught, the students enrolled in the classes, and the instructor assignments change from term to term, it was assumed that the level and types of grades assigned during the Winter Term (January-May) of 1979, were representative of typical grading practices at this college. It was also assumed that the faculty members' responses to the items on the questionnaire accurately reflect their grading practices and philosophies.

Delimitations

The grades of the credit classes taught by the part-time faculty members were included in the study. It would have been desirable to have included these instructors in the survey of grading practices, but the timing of the survey precluded it. To prevent any changes that may have occurred if the faculty had been aware that the Winter Term grades were to be the subject of a study, the survey was conducted after the grade reports for the term had been filed. Full-time faculty members are required to be on campus several days after the end of the term. The obligation of the part-time faculty ends when their grade reports are submitted; consequently, they were not available at the time the survey was conducted. For the same reason, student opinions regarding grading practices were not surveyed.

Limitations

All grades and grade point averages used in this study are for the Winter Term of 1979. While the Dean's and honors lists are based on term grade point averages, students are placed on probation and suspension if their cumulative grade point average, over blocks of 12 or more hours, falls below the specified levels. The part-time and less-than-part-time students designated as performing at the probation or suspension level, would not have actually been placed on probation or suspension as a consequence of their term grade point average. Likewise, full-time students with term grade point averages at the probation or suspension levels could have avoided being placed on these lists if their grades from previous terms were sufficiently high to raise their cumulative grade point averages above the levels designated for these conditions. While the classifications presented in the study accurately reflect the term performance of the students, the probation and suspension lists of the college are based on cumulative averages; consequently, except for the full-time, first-time-in-college students, the official probation and suspension lists produced at the end of the Winter Term of 1979, did not contain the same number of students as shown in this study.

The pattern of grades assigned and the level of student achievement reflected in this report were assumed to be typical of the second semester grades at this college. Most first time students enroll for the fall semester (August-May), so it is possible that there may be a larger number of voluntary withdrawals and no-pass grades during fall terms than during winter terms. Caution should be exercised when applying the findings of this study to fall or summer terms.

Since the punitive and nonpunitive, instructor-determined grading options available at Brevard Community College at the time of this study were rather unique, it is unlikely that the findings presented here can be generalized to other colleges--particularly those offering student-elected grading options and those which have course, department, campus or college-wide nonpunitive grading systems.

Definition of Terms

The following definitions apply to the terms used in this report.

Credit courses	- All courses for which credit hours are granted toward the A.A. or A.S. degrees or the Applied Science certificates.
Punitive grades	- Grades assigned to non-achieving students which adversely affects his/her general academic standing and/or one's right to continue at the institution.
Nonpunitive grades	- Grades assigned to students to indicate that course requirements have not been met but do not affect one's general academic standing or his/her right to continue at the institution.
Attempted hours	- The sum of the credit hours for all courses included in the computation of the term grade point average.

Registered hours	- The sum of the credit hours for all courses that appear on the term grade report.
Full-time student	- The hours attempted total is 12 or greater.
Part-time student	- The hours attempted total is 6 or more but fewer than 12.
Less-than-part-time student	- The hours attempted total is 1 or more but fewer than 6.
Grade point average(GPA)	- The traditional academic performance average derived by dividing the grade point total for the grades earned by the credit hours attempted. The grades of "I" and "W" are excluded from the computation.
Term progress index(TPI)	- An academic performance index which includes all courses for which the student registered. It is computed in the same manner as the grade point average except the grades of "I" and "W" are included in the hours attempted total and carry a grade point value of zero.
Dean's List	- Full-time students with a term grade point average of 3.25 or higher.
Honors list	- Part-time students with a term grade point average of 3.50 or higher.

Probation level	- The term grade point average is 1.00 or higher but less than 1.75.
Suspension level	- The term grade point average is less than 1.00.

Grade performance level

Level		Term grade point average
A	-	4.00
B	-	3.00 - 3.99
C	-	2.00 - 2.99
D	-	1.00 - 1.99
F	-	0.00 - 0.99

Criterion referenced grading	- Grades are based on the achievement level reached by the student compared to an absolute standard established for the course by the instructor.
Norm referenced grading	- Each student's achievement is evaluated and graded in terms of the relationship between that student's achievement and the performance of the other students in the course.
Contract grading	- A specified amount of work is required for each letter grade. All students who satisfactorily complete the work receive the grade designated for that amount of work.
Improvement grading	- Grades are based on how much the student improved his/her performance during the course.
Effort grading	- Grades are based on how hard the student tried to meet the requirements of the course.

Significance of the Study

To insure that the subject matter coverage and the student achievement requirements are comparable in all sections of the same course taught at this institution, college-wide final examinations are presently being implemented. In keeping with this move toward quality assurance, during the 1979-1980 academic year, the faculty senate and administration will review the college's grading policy. The data presented in this study will supply this group with objective information regarding the pattern of grades being assigned in the degree-credit courses, as well as the grade determination techniques being employed by the full-time instructors. The areas of disagreement between faculty preferences and the existing grading policy, revealed by the survey, should receive the special attention of the faculty senate when they evaluate the grading policy.

This study demonstrated the influence that no-pass grade processing procedures can have on the academic achievement and course load classifications of college students. When, as at Brevard Community College, a college is using the end-of-term academic classifications of students as a way of rewarding achievement and to identify those in need of special attention, it is important to evaluate the accuracy of the technique used to establish the categories. This study compared the number of students who would be in each of the formal classifications in use at this college with the number who would be in these categories if a comprehensive progress index were used to evaluate student progress in place of the traditional grade point average.

In recent years, no summary data concerning grading has been published by Brevard Community College. The distribution of the college grade profile and the questionnaire results provided in this report, would give each faculty member a base against which to compare his or her grading methods, the distribution of letter grades being assigned, as well as the type of no-pass grades being given. The publication of this information would also likely create greater interest in the review of the grading policy that will take place this year.

Overview

The next chapter presents a brief historical sketch of college grading practices prior to 1960. Following a discussion of grade determination techniques and the uses made of college grades, the literature dealing with the grading trends and controversies from 1960 to the present is reviewed. Chapter three describes the construction of the Brevard Community College grade profile for the Winter Term of 1979. The procedures used to collect data and contrast the effectiveness of two methods of computing academic achievement averages are described. The third chapter concludes by outlining the development and administration of the questionnaire used to collect faculty opinions regarding the type of no-pass grades and grade averaging procedures they believe should be used at this college.

Chapter four contains data revelant to each research question plus contingency tables and significance tests for each hypothesis. The information is presented in declarative as well as tabular and figural forms. The implications of the findings are discussed in the last chapter. The report concludes with a list of recommendations to be presented to the faculty senate and administration of Brevard Community College.

Chapter 2

REVIEW OF RELATED LITERATURE

The problem of grading has been persistently troublesome at all levels of education. Ebel (1972) has stated that if one reviews the articles on grading which were written a half-century ago, the same problems that were causing difficulty then are still causing difficulty at the present time, and many of the solutions proposed then are being proposed today. Milton (1973) believes that so much confusion exists that an almost unbrigeable gap has been created between the evaluation of what a student has learned and the assignment of a symbol--the grade.

This chapter presents a review of the literature on grading. A brief history of grading is followed by an overview of grading techniques and the uses made of grades. The changes that took place during the nontraditional grading movement of the last two decades are detailed. The chapter ends with a summary of the literature surveyed.

Historical Background

Kirschenbaum, Napier and Simon (1971) found that very little was written about grades and marking prior to 1900. However, records of achievement certification exist as far back as 2357 B.C. when the Chinese were using civil service examinations which gave each subject an opportunity to advance into the ruling class (Ebel, 1972). The usual practice in European and American universities until the mid-seventeenth century was to administer a single oral examination for a degree (Smallwood, 1935). These examinations were conducted by a non-faculty board and were public. In 1836 the University of London was established, without a faculty or a student body, as an examining and degree certifying authority and soon extended its "external degree" services to all parts of the British Empire (Ebel, 1972). However, as early as 1599 A.D., the Jesuits departed from the practice of using oral examinations and insisted on the use of written tests administered under a rigid set of rules (Ebel, 1972).

The introduction of the elective system and the subsequent abandonment of the uniform prescribed curriculum, plus the rapid growth of the student population, dictated the demise of oral tests by groups of external examiners (Elsner & Brydon, 1974). Another major force against the single final examination was the poliferation of knowledge which required that the number of examiners be greatly increased to accomodate the areas of student specialization (Smallwood, 1935). Subsequently, the task of student evaluation moved from the external examiners to the institution's own faculty members who made proficiency judgments at the termination of each course (Otto, 1973).

The first written reports of student achievement were descriptive and comments were made on the character of the student as well as on achievement (Mayville, 1975). After 1800, a variety of symbol systems came into use: a 1 to 4 notation at Yale in 1831, a 1 to 20 scale at Harvard in 1830, and a pass-fail system at the University of Michigan in 1851 (Mayville, 1975). Letter grades first appeared at Harvard in the 1880's when the faculty felt the use of the 100 step percentage scale had proven to be unsatisfactory (Haughey, 1977). By 1895, Harvard had adopted a system that used "Passed with Distinction," "Passed" or "Failed" and provided for the qualification of these labels through the use of plus and minus signs (Mayville, 1975). After 1900, a great variety of methods were introduced to evaluate students. Smallwood (1935:preface) comments that educators "indulged in an orgy of new attempts to evaluate mental abilities which took the form of elaborate testing programs followed by more complicated systems for reporting the results of these tests."

The reliability of student evaluations came under sharp attack with the publication of the studies of Starch and Elliot in 1912 and 1913. They evaluated the scores assigned to two English papers by 142 different teachers. It was found that although all of the teachers had graded on a 100 point scale, more than 30 different scores, over a range of 40 points, had been given to the same paper (Kirschenbaum et al., 1971). The resulting controversy is credited with accelerating the shift from the use of percentages to the five-point letter system which occurred during the 1920's. During the 1930's and 1940's, the educators involved in the standardized testing movement wanted to make grades more objective and scientific while the progressive educators wanted to eliminate grades (Kirschenbaum et al., 1971). By the end of the 1940's, the most common scale being used in the United States was the five-point letter grade technique (typically A, B, C, D and F) (Pedrini & Pedrini, 1972), and this scale continued to dominate the scene until the appearance of the nontraditional techniques which were the educational experiment of the 1960's and early 1970's.

Grading Techniques

At the end of each course, the evaluative data recorded for each student must usually be summarized and expressed as a single symbol. As Gronlund (1965) has pointed out, the process is highly subjective and few helpful guidelines are available. He believes there is no simple scientific means of determining what range of performance should equal a given grade. Numerous attempts have been made to improve the marking system by changing the number and appearance of the symbols (Gronlund, 1965). These have ranged from one-point systems such as pass-no record and credit-no record, called neuter grading by Collins and Nickel (1974), to the nine-point numerical (stanine) approach favored by Ebel (1972) and a 41 point scale (0.0 to 4.0), that has the appearance of the traditional grade point average, promoted by Carrier (1979). The most frequent variations from the traditional five-point system have been two (pass-fail, credit-no credit, satisfactory-unsatisfactory) and three (honors-pass-fail) step scales (Gronlund, 1965).

The symbol used on the grade report furnishes no clues about the elements which contributed to the determination of the grade. Frequently the recorded grades are conglomerates of such factors as achievement, effort, improvement, attendance and conduct. As Ebel (1972) comments, some instructors are likely to continue to base grades on things other than the achievement of the students since marks are effective instruments of social control, but he, and other authors (Gronlund, 1965; Tuckman, 1975), believe that a student's grades should reflect as accurately as possible the extent to which he or she has achieved the objectives of the course. Gronlund (1965) is convinced that if something other than achievement is graded, two marks should be recorded: one to show the achievement status of the student, and the other to indicate the improvement or effort expended during the course. He also states that even when grading is limited to achievement, it is difficult to interpret the mark because it is an average of both high and low performance and does not show the level achieved in relationship to the various topics or skills embraced by the course.

Just as the grade reveals nothing of the type of behavior which contributed to its assignment, it is also mute regarding the performance standard used in its determination. It is not unusual for two equal appearing grade scales to be based on very different performance criteria (Kirschenbaum et al., 1971) and it is well known that standards vary from institution to institution and often from teacher to teacher within the same school and subject (Garrison, 1979), particularly when department level tests and grading scales are not used (Tuckman, 1975). Of the grading methodologies which can be used to evaluate both the amount and quality of student achievement, contract grading, norm-referenced grading and criterion-referenced grading are the most common.

In contract grading, before instruction begins, the instructor and student agree in writing on the final course grade the student will receive and the tasks the student must complete to get the grade specified in the contract. Typically the learning tasks are sequenced so that certain objectives must be reached for a specified grade. Fran Hassenchal (1979) promotes the use of grade contracts and details the variations possible within this paradigm. Parks and Zurhellen (1978) found that students generally view grade contracts as a positive procedure and an aid to meaningful learning. Their research revealed that 90% of the students did feel they had honestly fulfilled their contracts and most said the use of contracts had decreased their anxiety about the course. A criticism of contract grading is that often the grade is primarily a measure of the volume of the work completed (number of lab projects or the number of articles read) rather than the quality of the student's achievements. Also under the contract system, the students opting for average and low grades may be able to avoid attempting a significant amount of the course's content. However, while these weaknesses are frequently found in functioning contract systems, they are not inherently a part of this grading methodology.

Two procedures which usually place their primary emphasis on the quality of the student's achievement over the specified course content, are norm-referenced and criterion-referenced grading. The techniques are distinguished by the standard against which each student's performance is compared. In norm-referenced grading, the quantity of each grade to be assigned is fixed in advance (usually through the use of the normal probability curve). These grades are distributed according to the rank-order of the students on the test or in the course. This makes the assignment of grades independent of the difficulty level of the test (or course) as well as the absolute performance level of the student (Tuckman, 1975). According to Wallace (1976:3) this type of curve-grading "implies that education is a random activity and it is a cruel, archaic and ineffective people sorting system that is extraordinarily expensive in terms of both wasted money and wasted human potential." Norm-referenced grading does require some people to be scored "average" in spite of the fact that they have learned the material (Wallace, 1976). For example, it was discovered that because the teachers were using a relative (norm-referenced) grade scale, the "A" to "F" grade distribution of the English 1 classes at Hofstra University (New York) were not significantly different before and after the better students were exempted from the course (Lichtenstein, 1971).

In criterion-referenced grading, each student is judged on his or her merit with respect to the standard set by the instructor for the test or course (Hambelton & Murray, 1977). The performance level that must be attained for each grade is specified, but no quotas are set. This is the method usually recommended by those who promote competency-based education (Banathy, 1968; Milton & Edgerly, 1976), and in its ideal form, provides a measurement of the degree of proficiency attained on each objective (Tuckman, 1975) Hambleton and Murray (1977), in a survey at the University of Massachusetts, found the majority of the faculty members and students favored criterion-referenced grading. The technique received the highest acceptability ratings (91.5% of the faculty and 90.4% of the students) of the grading methods rated (pass-fail, pass-no record, honors-pass-fail, norm referenced and criterion-referenced). It is also agreed that criterion-referencing can provide useful information about instructional effectiveness (Tuckman, 1975; Williams, 1979). A frequent weakness of many criterion systems, particularly in courses not requiring psychomotor tasks, is that the standards are often set in a normative way, such as 80% to 89% of the items correct equals a "B" (Tuckman, 1975). Also, as in contract grading, different teachers of the same subject often establish different performance standards for the same grade.

The Utility of Grades

Regardless of the nature of the symbol used to code the grade, or the technique used to determine which grade will be recorded, there is substantial evidence to show that grading procedures affect students' attitudes toward learning, the amount learned, course selections and the amount of time spent in study (Warren, 1971). From their review of the literature on grading practices, Hambleton and Murray (1977:4) constructed the following list of the uses made of grades:

1. Provide students with feedback on their course performance.
2. Inform others (e.g., advisors, future teachers, employers, registrar) about student performance.
3. Motivate students to do good work in the course.

4. Provide instructors with information about student progress.
5. Improve a student's ability to critically assess his or her own work.
6. Provide instructors with information about their teaching methods.
7. Provide instructors with information about their curriculum.
8. Assess teacher competence.
9. Compare student performance against absolute standards of performance.
10. Rank students on their performance in the course.
11. Summarize multiple evaluations of a student during a course into a single digit or letter.
12. Provide a method for maintaining academic standards.

When presented with this list, both students and faculty at the School of Education of the University of Massachusetts rated the first five items (in order) as the most important functions of grades (Hambleton & Murray, 1977).

Grades are also used to predict future performance in the academic setting and in the world of work. Most studies show grades to be moderately good predictors of future grades and undergraduate grades tend to predict first year graduate grades (Warren, 1971), but a strong relationship between college grades and on the job performance is rare. Hoyt (1965) reviewed studies on the relationship between college grades and occupational achievement and concluded that the evidence suggests there is no meaningful relationship between academic success and any measure of adult accomplishment. Warren (1975) stressed that until better information is available on the effectiveness of grades with respect to the purposes for which they are used, the continued trading of unsupported assertions about them is fruitless.

Recent Trends and Controversies

Nontraditional Movement

"Starting in the 1940's and 1950's, and gaining momentum under the egalitarian outlook and campus unrest of the 1960's, increased numbers of institutions at all levels of education began to experiment (some timidly, others radically) with innovative grading programs" (Wallace, 1976:3). Neobehaviorism, under the leadership of B. F. Skinner, was on the rise during the 1950's and made itself felt in education through the development of teaching machines and programed instruction. Fred Keller began to apply the principles of incremental learning and positive reinforcement to classroom teaching which drew attention in educational circles with the publication of his Learning: Reinforcement Theory in 1954. This was followed by the a series of "how-to" books: Preparing Instructional Objectives (Mager, 1962), An Introduction to Programed Instruction (Deterline, 1962), and in 1964, The Audio-Tutorial Approach to Learning by Postlethwait, Novak and

Murray. The publication of Skinner's "The Technology of Teaching" in 1965, Bela Banathy's Instructional Systems, and Fred Keller's "Good-Bye Teacher..." in 1968, furthered the cause of the systems approach to instruction.

Grades are the base of the formal learning pyramid and one cannot attempt instructional innovations without giving the grading system due consideration (Milton, 1973). In his address to the Council of Graduate Schools in the United States, Leonard Kent (1969:2) said, "Traditional grading practices have potential for corrupting the true purpose of education." He recommended the use of a pass-withdrawal system accompanied by the written comments of the teacher. At the same meeting, the Ad Hoc Committee on Grades and Evaluation recommended a reduction in the use of letter grading and encouraged the development of alternative methods of evaluating students at the undergraduate and graduate levels (Sparks, 1969).

Most of the advocates of the self-paced, the systems approach, mastery and/or competency philosophies and instructional methods, advise the use of behavioral objectives and criterion-referenced tests keyed to the objectives (Banathy, 1968; Bloom, Hastings & Mandus, 1971; Mager, 1962; Tuckman, 1975). This focused attention on grading scales and grade processing practices, and during the late 1960's, every feature of the traditional system came under attack (Miller, 1965). The advantages and disadvantages of traditional grading were summarized for the Academic Senate of the University of California at Berkeley by Stuart Miller (1967:39) as follows:

> The following advantages are regularly cited for traditional grading: it is in common use and allows relatively standardized information about students; it enforces academic discipline; it serves numerous administrative purposes; it prepares students for the competitions of life; it motivates students; and it is a fairly reliable index of academic achievement.
>
> The disadvantages far outweigh the advantages, however. These include: the inaccuracy of traditional grading; its deleterious effects on the teaching situation, learning and creativity; and its ineffectiveness in stabilizing the academic standards of the university and in motivating students. In addition there is substantial evidence to indicate that grades badly serve the purpose of determining graduate admission; that transferring and hiring can be done without grades, and that the grading system has no counterpart in real life.

While there was a major trend within educational institutions to adopt policies which included some form of nontraditional grading (Yuker, 1969), the "A" - "F" scale was not abandoned. The major surveys of grading practices during this period revealed that the overwhelming majority of the institutions were using five-point grading systems (AACRO, 1971; Benson, 1969; Goldstein & Tilker, 1969). In their study of 544 public and private, two and four-year institutions of higher education, Collins and Nickel (1974) found the colleges were experimenting with a wide variety of grading practices. Most stated they were using one or more types of nontraditional grades, but few were using them exclusively. The American Association of Collegiate

Registrars and Admissions Officers (AACRO, 1971) announced that 50% of the 1,301 member colleges were using traditional grading scales, and 46% had grading systems that combined traditional and nontraditional policies. In the same survey, 41% of the institutions predicted their grading would become less traditional in future years. Coffey (1977) noted that nontraditional grading practices generally include one or more of the following mechanisms: liberal withdrawal policies, credit-no credit grading options, forgiveness of penalty grades, the elimination of the "F" grade, or replacement of penalty grades by the repetition of courses.

As in previous periods of change, many alterations were made in the number and appearance of the symbols used to record achievement. Harrisburg Community College (Pennsylvania) began to record "Y" grades for their "in-progress" students (Ebersole, 1975). At Kalamazoo Valley Community College, "X" replaced "F," "W" and "I" grades. When it was discovered that students were interpreting the "X" as a failing grade, it was changed to "0.0" (Woods, 1978). Harford Community College used "*" in place of "F" (Tschechtelin, 1975), and the use of "P" - "F" and "H" - "P" - "F" scales was quite prevelent.

The most frequent innovation of this period was the adoption of pass-fail grading (Fleming, 1973). The Santa Cruz campus of the University of California opened in 1965, and offered all of its courses on a pass-fail basis. While college-wide pass-fail grading was an exception, 61% of the institutions in the AACRO survey (1971) said they had some pass-fail or credit-no credit provisions in their grading policies. The majority of these schools limited students to one course per semester and some prohibited the use of the option in a student's major field (Hewitt, 1967). From a survey of 150 institutions, Quann (1970) reported the two typical reasons given for the use of pass-fail systems were: to encourage students to explore outside their major without jeopardizing their grade point averages and to minimize the fear of failure.

Following the recommendations of many of the writers of the time (Caldwell & Dodamead, 1973; Kent, 1969; Roueche & Kirk, 1974) colleges began to implement nonpunitive policies in which the complete elimination of the failure concept became the emerging pattern (Quann, 1970). The usual arguments in favor of nonpunitive grading were: an "F" is a double penalty requiring better-than-average grades to counterbalance it; fear of getting an "F" may impair the performance of anxiety-prone students; and the use of the "F" discourages experimentation outside one's major field (Smith, 1969). Santa Fe Community College in Gainesville, Florida, adopted a college-wide nonpunitive grading policy in 1967. This policy is still in effect and is the longest standing, college-wide, nonpunitive grading system among the community colleges in the United States (Coffey, 1977).

Under this "fail-safe" system, students receive only "A," "B" and "C" grades. If a student does not achieve the level required for one of these grades, he or she receives no grade, no credit and no record. No student is ever terminated because of academic failure and no student ever has a grade point average below 2.00. As was the case with Santa Cruz, Santa Fe is an exception. The AACRO survey (1971) found that only 2% of the nation's institutions were using nontraditional grading methods exclusively. Usually when nonpunitive systems were adopted, the schools limited them to remedial courses, courses outside the student's major field or provided it as an option limited to a small portion of the credits counted toward graduation.

Nonpunitive features were also added to withdrawal and grade averaging procedures. Of the 544 colleges surveyed by Collins and Nickel (1974), 23% allowed students to withdraw at any time during the term. At some schools instructors could assign a withdrawal as a final course grade (Whitney, 1979). The Collins and Nickel survey (1974) revealed that at 82% of the colleges, students were allowed to repeat "D" and "F" courses in order to remove the grade, and in the majority (60%); only the last grade earned was used in the determination of the grade point average. A few institutions included only passing grades in the calculation of grade point averages, and 16 of the 544 did not compute grade point averages. Approximately 65% continued to place students on academic probation, but only 31% had suspension policies; however, 82% did require a minimum grade point average for graduation (usually 2.0). Collins and Nickel (1974) concluded there were almost as many different types of grading systems as there were institutions, but they did detect a trend toward being less punitive with grades and a tendency for transcripts to be used as records of credits earned rather than as chronologies of the courses for which students had registered.

Influence on achievement indicators. The grade point average is the most frequently used index of academic achievement both for educational research and admission to graduate school (Hofeller, 1971). Melville and Stramm (1967) noted that the enrollment in the pass-fail courses at Knox College (Illinois) for the 1966-67 year had increased 55.5% over the 1965-66 figure and that a student's grade point average was likely to increase in direct proportion to the number of pass-fail courses taken. The studies dealing with nontraditional grading practices published in the early 1970's, consistently reported that grade point averages were rising (Davidovicz, 1972; Delohery & McLaughlin, 1971; McLaughlin, 1972) and the phrase "grade inflation" was frequently seen in the literature. Chase (1973) researched the academic records of students electing pass-fail courses and announced that prior to using the option, they had lower grade point averages than the students who did not elect pass-fail grading. Student interviews conducted by Rick Nations (1973) at Florida State University revealed that students elected pass-fail to protect their grade point averages rather than to take courses outside their major field. The Office of Institutional Research at Wisconsin University (1973) stated that nontraditional grading tampered with the integrity of the grade point average, and students produced lower quality work in these courses than when traditional grades were used.

Studies reporting the influence of nonpunitive grading were similar to those which evaluated the pass-fail technique. Harford Community College (Tschechtelin, 1975) verified that eliminating the "F" grade from their traditional five-point scale caused a general rise in grade point averages. In addition, the percentage of the student body on the honors list rose from 18% to 21% in one year and there was an increase in the proportion of students with grade point averages above 3.00 and a decrease in the proportion below 2.00; however, the middle group, between 2.00 and 3.00, remained the same. Tschechtelin (1975) also discovered a change in the pattern of grades assigned. The number of "A's" increased, as did the number of non-penalty, no-pass grades in proportion to the number of "F's" that had been assigned the previous year. There were significantly fewer "I's," the number of "W's" increased, and overall the proportion of students receiving passing grades dropped 2.4%.

Ehrlick and Ellis (1975) expressed the belief that La Guardia Community College (New York) awards a higher proportion of no-pass grades than any other community college in the CUNY system, because of its lack of a true failing grade. Suslow (1976) reported that the consistent increase in grade point averages since 1963 had leveled off; this trend was also observed by Esp (1976) along with the finding that the percentage of grades in each grade category had become fairly constant.

Influence on motivation and learning. While nontraditional grading does seem to inflate the academic achievement indicators, there is evidence it also has a negative influence on both student motivation and the volume of learning. Delohery and McLaughlin (1971), as a result of extensive surveys at Princeton and the University of Southern Illinois, concluded that students suffer some loss of motivation in their pass-fail courses and it is likely that they also learn less. McLaughlin (1972) found that when students elect nontraditional grading they also tend to take more hours. At the University of Wisconsin (1973) implementation of the pass-fail system resulted in larger than normal student course loads. Reiner and Jung (1972) compared the performance of the pass-fail registrants with that of regular students in the same course and reported the pass-fail students did not achieve as well. Davidovicz (1972) observed that the performance of students enrolled in a combination of pass-fail and traditional classes declined in all their classes, not just in the pass-fail courses. Experience with the pass-fail method at the University of Alberta (Otto, 1972) led to the conclusions: pass-fail does not motivate students to learn, students do not use it to explore outside their major, students do fewer of the assigned readings and attend fewer classes than they do under a conventional grading system. Vernon and Ramseyer (1972) randomly assigned students in the same class to three grade conditions: traditional grading, pass-fail and credit-no record. When compared to the traditional students, pass-fail students studied 50% as much and achieved 89% as many correct answers on the examination. The non-evaluated students studied only 13% as much and achieved 63% as many correct answers as the traditionally graded students. At Florida State University, Nations (1973) noted that 41% of the students said they did less work in pass-fail courses, but they did increase their efforts again when they enrolled in graded classes. Two single-blind studies, in which the instructors assigned regular grades to the pass-fail students enrolled in their classes, found the performance of the students using this option was significantly lower than the other class members. In the von Wittich study (1972) the difference was significant at the .01 level and she recommended that pass-fail not be used in any subject requiring cumulative learning. Richard Call (1975), after controlling for sex, intelligence, grade point average, college major, course load and class size still found the course grade means were significantly different at the .05 level. He speculated that students who elect pass-fail grading may not be as motivated to learn as students who choose to be graded conventionally.

Influence on persistence. Even though existing research tends to define academic performance almost exclusively in terms of grades and grade point averages, Roueche and Kirk (1974) recommend that more attention be paid to persistence as a criterion of success. They point out that ultimately the student's success in college is judged, not in terms of the grade point average, but in terms of the educational program he or she has completed. Lavin (1965) found both college persistence and achievement were related to higher earnings and greater economic opportunity. In areas where persistence is a problem, such as remedial education, Roueche and Kirk (1974) recommend that students be given sufficient time to accomplish the learning task and that nonpunitive grading systems be used.

Coffey (1977) believes the implementation of the college-wide, nonpunitive system at Santa Fe contributed to the growth of the college by attracting out-of-district students who wanted to work in a non-threatening educational setting. Noffsinger (1975) proclaimed that Santa Fe has sent a larger number of minority students to the junior level than any other college in the State of Florida. California State College (Thayer, 1971) established that significantly more students who received "D" and "F" grades dropped out than students who received nonpunitive no-pass grades. Smith (1969) observed that the use of "D" and "F" grades resulted in more student dismissals than were made if nonpunitive systems were used. Prince George's Community College (Maryland) implemented nonpunitive grading practices and experienced a decrease in the number of withdrawals (Larkin, 1977). Johnston and Avila (1977), in a study of four community colleges, verified that high-risk students graduated only half as frequently from traditional community colleges than from nonpunitive colleges.

Acceptability. Surveys of student attitudes toward nontraditional grading generally reflect positive feelings. Kraft and Lundquist (1971) recommended that the pass-fail option be continued because it was both well received and well perceived by students. Priest (1971) announced that regardless of differences in students' aspirations for grades or their actual grade accomplishments, they favored the retention of nontraditional grading. Harrington (1974) reported that vocational students prefer traditional grading and the general academic students favor the use of grading options.

Although Hardy (1975) indicated both students and faculty attitudes about the pass-fail system were strongly positive, Stallings and Smock (1971) found that some instructors believe the option is being abused. At Indiana University, approximately two-thirds of the faculty favored retaining pass-fail courses, 18% advocated abolishment and 16% declined to answer (Chase, 1973). Frankel (1974) reported that faculty members were about equally divided in favor or, and against or uncertain of the merits of an honors-pass-fail grading procedure.

While it appears that students like nontraditional grading, and faculty members are less sure, there is little doubt that graduate and professional school deans and admission officers prefer traditional grading (Hassler, 1969; Heininger, 1972). The majority of graduate schools are recomputing grade point averages to compensate for the use of pass-fail and other innovative grades (Hofeller, 1971). Davidovicz (1972) discovered that when students are graded nontraditionally, they have a lower chance of being admitted to graduate school. Quann (1974) believes that if nontraditional grading is to remain a part of the academic process, other evaluative methods must be added (such as written recommendations and standardized tests) or students will be short-changed when applying for further education or employment. However, it seems that employers in private industry are less concerned about a student's grades than his previous work experience record, and government employers base their hiring on government-designed tests rather than grades (Bailey, 1972).

Back to Basics

The nontraditional movement was not without its dissenters. In 1969, Wesley Dale warned against the implementation of grading alternatives, pointing out that the traditional system has many advantages: it has been tested by experience and the grade point average is one of the most consistent indicators of a student's probable success. Ebel (1972) objected to Glasser's (1969) *Schools without Failure* proposal. He maintained that one cannot eliminate failure without also eliminating any meaningful experience of success, Ebel (1972:48) wrote:

> Whenever goals are reasonably challenging and standards reasonably high, failures are bound to occur. Kept to a minimum, they constitute a valuable part of a person's education. Schools may refuse to recognize failure, but a good school cannot and will not try to banish it.

Feldmesser (1972) maintained that grades should give the student a sense of the quality of his performance as a whole. He believed that poor grades, as well as good grades, aided the student in selecting his field of study and deciding to or not to continue his education.

The number of publications critical of the changes that occurred in grading during the 1960's and early 1970's have increased in the past five years. Moulds (1974) complained that dismissals for academic insufficiency have gone down at the same time that the initial quality of the students has gone down. Newsweek (July 1, 1974) brought attention to the fact that in 1961, one-half of the seniors at Harvard graduated with honors, but 82% of the class of 1974 graduated cum laude or higher. The same article pointed out that at the University of Virginia, 53% of the student body was on the Dean's List (compared to 21% in 1965). Bolin (1975) concluded that institutions must either move to a pass-fail approach with no honors or return to a more dedicated approach to student evaluation. White (1975) in an article titled, "Sometimes an A's really an F," asserted that unless the corruption of present grading practices is changed, colleges will simply lose their right to evaluate students and certify them for degrees. Carr (1974) emphasized that the pass-fail system is not appropriate for grading legal clinical practice and promoted the use of more precise methods. In a survey of community college instructors, 70% felt that the innovative programs have not lived up to their promises and were largely responsible for grade inflation, the erosion of institutional standards and a de-emphasis on cognitive learning (Handleman, 1976). In his recommendations to the Council on Postsecondary Accreditation, Robert Jacobson (1978) said that institutions should be required to use performance standards, which if met, would reasonably guarantee the competence of their students. He also suggested that in evaluating colleges for accreditation, judgments should be based on how well the students are learning rather than how many books the school has in its library.

Postsecondary institutions seem to be responding to the charges that standards are down. Suslow (1976) found that about half of the California colleges have added plus and minus signs to their grades or have adopted other changes that provide for a greater differentiation among grades. Harvard has begun to enter "F" grades on students' transcripts again, and beginning in the fall of 1979, the requirements for the bachelor's degree will be stiffened (Chronicle, May 8, 1978). Occasionally, students have taken administrators to task for not maintaining standards. When the president of Frostburg State College (Maryland) gave 35 students a "second chance" rather than suspending them, the student newspaper labeled it "academic fraud" and declared the president just wanted to collect more fees from the "flunk-outs" (Chronicle, July 17, 1978).

In 1975, Mayville declared there was a growing feeling that learning should be independent of evaluation. He expressed the belief that this may be the idea around which future grading systems may evolve, and there does seem to be a trend in that direction. A majority of the states have mandated that some sort of competency tests be required for high school graduation (Haney & Mandus, 1978) and a growing number of colleges and universities are experimenting with "minimal competency" tests (Richards, 1979). For example, the City University of New York gives students competency tests before they can become juniors. The University of Wisconsin puts students on probation who fail to satisfactorly prepare a research paper and/or fail a competency test in reading, writing, mathematics and library skills (Richards, 1979). It would seem that the evaluation of students, through the use of standardized tests, is once again passing into the hands of external examiners, which was the usual practice in the early 1800's before colleges began to grade their students.

Summary

A review of the history of grading disclosed that in the early 1800's, instructors began to evaluate students at the end of each course. Many variations occurred in the number of steps used to measure achievement as well as in the symbols recorded on the academic records. By 1940, most institutions were using a five-point letter scale.

The innovations in instructional practices and grading methods inaugurated in the 1960's and early 1970's, turned the decoding of college transcripts into a guessing game. There was a significant rise in the number of students lauded for outstanding achievement and dismissals were rare. Some evaluators extolled the virtues of the nontraditional movement and were elated it had enabled students to increase their academic accomplishments. The detractors believed the rise in grades was an artifact of the changes made in the evaluation procedures and grading scales and did not represent an increase in student learning. As the research accumulated, more and more people became convinced that the grades were inflated and standards were down.

During the past five years, colleges have begun to reverse their nonpunitive policies and to expand the number of steps on their grade scales. The competency testing movement is spreading to the postsecondary level and some institutions now require minimum proficiency scores, as well as satisfactory grades, before students are admitted to upper-division work or are granted degrees.

Chapter 3

RESEARCH DESIGN AND METHODOLOGY

This project was a comparative case study of the no-pass grading practices at Brevard Community College. The frequency of assignment of each letter grade was determined for the Winter Term (January to May) of 1979. The number of students in each achievement classification in use at this college was compared with the number who would be in each category if all credit hours for which each student registered were used in computing the term academic performance average rather than the hours attempted, as defined by the present grading policy. The members of the full-time instructional faculty were surveyed to determine the grading methods they employ and their preferences regarding the type of no-pass grades that should be available, the method that should be used to compute grade point averages, and the eligibility requirements for the academic performance categories.

Term Grade Profile

Methodology. To supply a background against which to view the two measures of student achievement contrasted in the study, the frequency of assignment of each letter grade was recorded. From this data, the number of credit hours for which each letter grade was assigned was derived and displayed in tabular and graphic form. A second graph contrasts the percentage of the total grades assigned for each passing grade with the percentage of no-pass grades. The proportion of credit hours for which students registered, but which did not have an influence on their term grade point averages, was calculated.

Population. All of the grades assigned (N = 29,580) in the credit courses of Brevard Community College at the end of the Winter Term of 1979 were included. These grades, and the credit hours of registration (N = 88,933), represent the input from which all student academic performance averages were determined.

Data collection. At the end of each term, after the production of student grade reports, the data processing department presents a "Grade Distribution Analysis" report to the provost of each campus. The report shows the number of grades (by letter) for each of the credit classes taught during the term. This report, plus the credit hours listed for each course in the College Catalog, furnished the data described in this section.

Student Achievement

Methodology. Frequency distributions and polygons were used to display the term performance of the full-time, part-time and less-than-part-time students. For the tabulation of the term grade point average (GPA), students were placed in the above enrollment categories based on the hours attempted total which excluded the credits for which "I" and "W" grades were recorded. The 0.0 interval of the GPA distribution involved only those students who passed no courses, but who did receive one or more "F" grades. Students who received all "I" and/or "W" grades (zero hours attempted) were not included in the GPA tables; however, another table showing the number of students in this situation was prepared. The number of students who terminated one or more courses with an "I" or "W" was shown for each GPA interval.

For the term performance index (TPI), the enrollment designation of the students was based on the credit hours of registration. All no-pass courses ("F," "I" and "W" grades) were included with a point value of zero. This index was designed as a measure of the achievement level of the student in terms of his/her intent to achieve during the term. Since the student must pay for each credit hour, and fee refunds are not made after the close of the drop period, the hours of registration at that time were taken as a statement of the student's intent to achieve. Student voluntary withdrawals during the term, as well as instructor-assigned end-of-term withdrawals, were included in the computation of this performance average. A study at Ventura College (California) by Matley (1978) confirmed that the majority of voluntary withdrawals made during the term were by students doing "D" and "F" level work.

The proportion of the students on the Dean's List and the proportion of those on the honors list (GPA base) who received one or more "I" and/or "W" grades were calculated. Contingency tables were constructed and Chi-square used to evaluate the following hypotheses. A significance level of .01 or greater was considered sufficient to reject a hypothesis.

H6 There is no significant difference in the proportion of students classified full-time, part-time and less-than-part-time at the beginning of the term who received "I" and/or "W" grades in all their courses.

H7 There is no significant difference in the proportion of students classified full-time, part-time and less-than-part-time based on the hours attempted total (GPA base) and the hours of registration (TPI base).

H8a There is no significant difference in the proportion of the full-time students who would be placed on the Dean's List, or in the proportion who would be considered to have achieved at an average, probation or suspension level for the two performance indexes.

H8b There is no significant difference in the proportion of the part-time students who would be placed on the honors list, or in the proportion who would be considered to have achieved at an average, probation or suspension level for the two performance indexes.

H9 There is no significant difference in the proportion of the less-than-part-time students who achieved at each grade level for the two performance indexes.

Population. All students who were enrolled for one or more credit hours at the end of the drop period of the Winter Term of 1979 were included (N = 9,946).

Data collection. The registrar's file copy of the students' grade reports was used to tabulate the grade point average data. The computer program used to produce the grade reports was modified to include all no-pass grades in the academic performance average, then a second printing of the grade reports was made by the data processing department. The term progress index distributions were constructed from this report. The credit course, term student enrollment totals were verified by the comptroller.

Faculty Preferences

Development of the instrument. A questionnaire was designed to gather faculty opinions regarding the type of no-pass grades that should be used, the factors which should influence the grade point average and the eligibility standards for the academic performance categories. The questionnaire also inquired concerning the method of grading being used by the respondents. The various drafts of the instrument were critiqued by the following people:

Robert Aitken, Chairman-Liberal Arts Division,
Cocoa Campus

Don Argo, Professor-Mathematics

Mary Bayless, Assistant Professor-Behavioral Sciences

Marion Cheney, Assistant Professor-Behavioral Sciences

Mary Jo Foster, Professor-Technical Writing

Raymond Gompf, Associate Professor-Environmental Technology

Joseph Keller, Dean of Instruction

Jane Kennedy, Professor-Study Skills and Reading

Art Pollock, Chairman-Liberal Arts Division, Melbourne Campus

Willian Taylor, Dean of Student Services

Everett Whitehead, Professor-Counseling

The final version of the instrument (Appendix C) was reviewed by the Dean of Instruction and the Provost of the Cocoa Campus, and on their recommendation, was approved for distribution by the College President, Maxwell King.

Methodology. The number of faculty members (and the percentage of the faculty) who selected each alternative was recorded, as well as the number of persons who responded to the item. A descriptive summary of the responses was written for each topic. The modal responses were organized into a policy-like statement. It was noted if the various provisions of this "faculty preference policy" were the same as or different from the grading policy currently in use at this college.

The number of instructors subscribing to each grading method was recorded. For those who said they used a mixture of methods, a table was used to display the combinations of techniques that were being used.

Population. According to the college personnel office, 202 full-time instructors were employed during the Winter Term of 1979. A 68% return (137 forms) was achieved. The number of responses secured for the individual items of the questionnaire ranged from 124 to 137.

Data collection. The survey, and a memorandum written by Joseph Keller, Dean of Instruction (Appendix C), was distributed to the faculty members by their respective division chairpersons. To prevent any influence that the survey may have had on the grades assigned for the term, the forms were dispersed after the instructors had filed their term grade rolls. All responses were anomymous and the division chairpersons did not maintain a record of who returned or did not return the form.

Chapter 4

SUMMARY OF FINDINGS

The purpose of this project was to describe and evaluate the no-pass grading practices at Brevard Community College. Each major section of this chapter presents the grades of the Winter Term of 1979 from a different perspective. In the first section (Term Grade Profile), the number of credit hours for which each letter grade was assigned was tabulated and used to display the pattern of grades recorded at the end of the term, as well as the relationship between the number of credit hours awarded (passing grades) and the number of credit hours which were withheld (no-pass grades) by the college. In the second section of the chapter (Student Achievement), attention shifts to the grades earned by the individual students. For each course load group, the students' term grade point averages were plotted and compared with the achievement averages produced by a comprehensive term progress index. The final section (Faculty Preferences), describes the methods that were used by the faculty to assign grades for the term, their opinions regarding the variety of no-pass grades which should be available to the instructors, their views concerning how term grades should be averaged, and their conceptions of the criteria which should be used to designate the various academic achievement classifications in use at Brevard Community College.

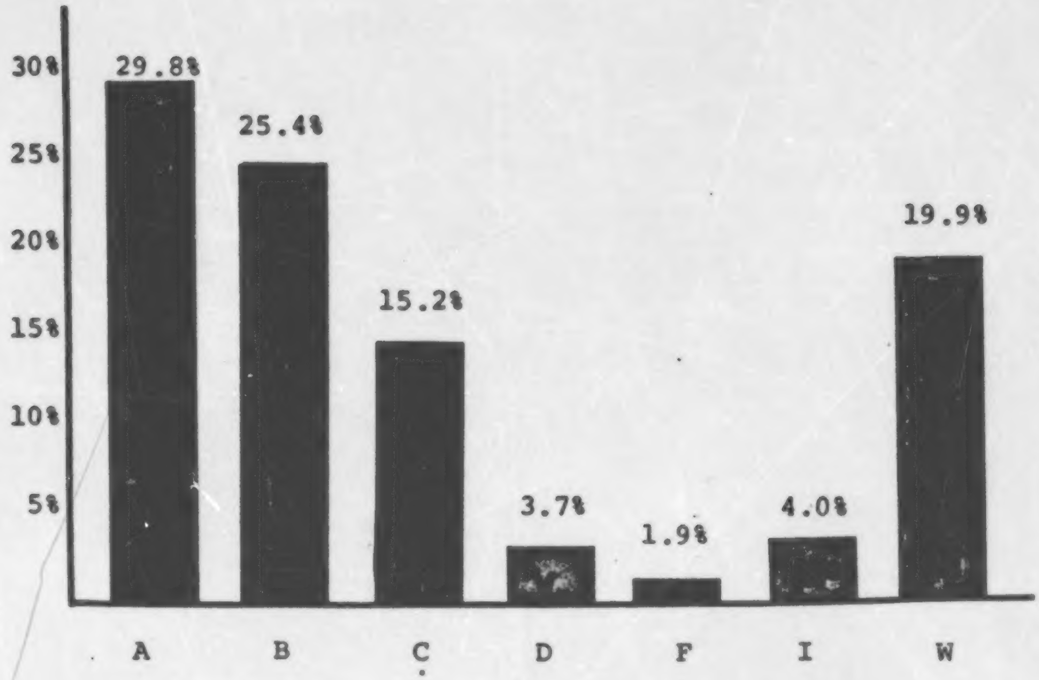
Term Grade Profile

At the end of the Winter Term of 1979, the registrar posted 29,580 letter grades (involving 88,933 semester hours of credit) to the academic records of the students who had registered for one or more credit courses during the term. Frequency counts for each letter grade, and the number of credit hours for which each grade was assigned, are presented in Table 15 and Table 16 of Appendix D. The grade frequencies shown in these tables were derived from the term "Grade Distribution Analysis" report prepared by the data processing department for the campus provosts. The grades assigned in all of the credit courses taught at the various instructional centers of this college during the Winter Term of 1979 are included in these tabulations.

Research Question 1

> In terms of the number of credit hours for which each letter grade was assigned, what were the characteristics of the term grade distribution?

The bar diagram on the following page reflects the data summarized in Table 16 (Appendix D), and displays the percentage of the total credit hours of registration for the term (88,933) which were awarded each of the letter grades authorized by the grading policy of Brevard Community College (Appendix A).



Final Course Grade

Figure 1

Percentage of the Credit Hours of Registration Awarded for each Letter Grade

The "A" was recorded for more credit hours than any of the other grades (29.8%) and the "D" was the least used of the passing grades (3.7%). The "F" received a lower allocation of semester hours than any other final grade (1.9%). The distribution of the grades which influence students' grade point averages ("A" - "F") is highly skewed in the positive direction. The "W" grade was recorded for almost 1 of every 5 hours of registration (19.9%) making it the most frequently used no-pass grade.

Research Question 2

What was the percentage of pass and no-pass grades and credit hours?

Of the 29,580 letter grades recorded (Table 15, Appendix D), 21,867 or 73.9% were passing ("A" - "D"), and 7,713 or 26.1% were no-pass grades ("F," "I" and "W"). The percentages for the credit hour base (Table 16, Appendix D) were similar with 74.2% or 65,999 credit hours passed and 25.8% or 22,934 hours for the no-pass grades. When the no-pass grades were combined, the term distribution (Figure 2) took on a distinctive "U" shape and the no-pass category contained the second largest number of credit hours.

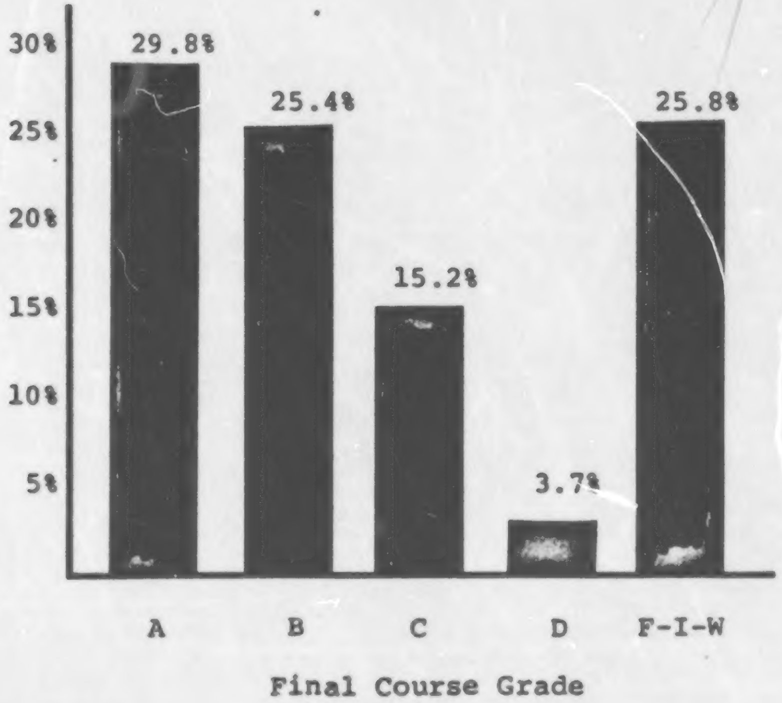


Figure 2

Percentage of the Credit Hours of Registration for each Passing Grade and the Combined No-Pass Grades

Research Question 3

> Of the credit hours for which students received term grades, what percentage did not have an influence on the term grade point averages?

As exhibited in Table 2, 21,201 credit hours or 23.8% of all semester hours of registration did not enter into the calculation of students' term grade point averages.

Table 2

Credit Hours Excluded from the Computation of GPA's

	Semester Hours	Percent
Hours included in the GPA (A - F)	67,732	76.2%
Hours excluded from the GPA (I & W)	21,201	23.8%
Total semester hours	88,933	100.0%

When the grade point average was calculated for the term using the technique defined by the present college policy (Appendix A) and the credit hours shown in Table 16 (Appendix D), the Winter Term of 1979 "assigned" grade point average for the college was 3.02. However, if the "I" and "W" grades are given the grade point value of zero (the same as the "F" grade), and included in the computation, the term "assigned" grade average drops to 2.30. This shift in the college-wide, credit course, grade point average is caused by the exclusion of nearly one-fourth of the credit hours of registration (23.8%) from the end-of-term, hours attempted total used in the computation of the grade point averages.

Summary

When the three varieties of no-pass grades were combined and compared with the passing grades (Figure 2), the credit hour base, term grade distribution was "U" shaped. "A" was recorded for more credit hours than any other letter (29.8%). The second largest number of hours (25.8%) was accrued by the no-pass grades ("F," "I" and "W"). The "W" was the modal no-pass grade and "F," the only no-pass grade to be included in the grade point average, was the least used of all the grades (1.9% of the credit hours). Of the semester hours for which students enrolled at the beginning of the term, 23.8% did not have an influence on the grade point averages computed at the end of the term.

Student Achievement

The term grade profile presented in the preceeding section described the grade assignment pattern in the credit classes for the Winter Term of 1979. In this section, attention is given to the performance of the 9,946 students who enrolled for one or more credit classes during that term. Frequency distributions were compiled to display the academic averages of the full-time, part-time and less than-part-time students. The term grade point average (GPA) of each student was computed according to the current college policy (Appendix A), then placed in the appropriate course load table for the total number of hours attempted (which did not include the credit hours for which "I" and "W" grades were received). The grade point average (GPA) tables also note the number of students at each performance interval who received one or more "I" and/or "W" grades.

A second academic average was calculated for each student--the term progress index (TPI). To derive this average, the hours of registration (all credit hours for which the student was enrolled at the end of the drop period) was substituted for the hours attempted total used to obtain the grade point average. The term progress index (TPI) is intended to reflect the degree of academic success attained with reference to the student's intent to accomplish at the beginning of the term as measured by the credit hours of registration. In this average, all no-pass grades ("F," "I" and "W") were given the grade point value of zero.

Performance of the Full-Time Students

At Brevard Community College, a student with 12 or more semester hours is considered full-time. The grade point averages of the 2,552 students who completed the term with 12 or more credits (hours attempted) are shown in Table 3. Table 4 displays the term progress index of the 4,004 students who began the term with 12 or more credits (hours of registration).

Table 3

Performance of the Full-Time Students
GPA Base

Academic Average	No "I" or "W" Grades	With "I" or "W" Grades	Total
4.00	237	24	261
3.75 - 3.99	204	41	245
3.50 - 3.74	285	44	329
3.25 - 3.49	276	63	339
3.00 - 3.24	361	86	447
2.75 - 2.99	180	49	229
2.50 - 2.74	179	43	222
2.25 - 2.49	106	52	158
2.00 - 2.24	138	42	180
1.75 - 1.99	35	12	47
1.50 - 1.74	28	13	41
1.25 - 1.49	9	7	16
1.00 - 1.24	20	8	28
0.75 - 0.99	1	0	1
0.50 - 0.74	1	0	1
0.25 - 0.49	2	0	2
0.01 - 0.24	0	0	0
0.00	6	0	6
Total students	2,068	484	2,552

Table 4

Performance of the Full-Time Students
TPI Base

Academic Average	Number of Students
4.00	234
3.75 - 3.99	203
3.50 - 3.74	286
3.25 - 3.49	315
3.00 - 3.24	454
2.75 - 2.99	274
2.50 - 2.74	308
2.25 - 2.49	245
2.00 - 2.24	318
1.75 - 1.99	208
1.50 - 1.74	166
1.25 - 1.49	134
1.00 - 1.24	154
0.75 - 0.99	108
0.50 - 0.74	86
0.25 - 0.49	56
0.01 - 0.24	24
0.00	431
Total students	4,004

To facilitate the comparison of the grade point average (Table 3) and term progress index (Table 4) academic averages of the full-time students, frequency polygons were constructed to display the two distributions (Figure 3).

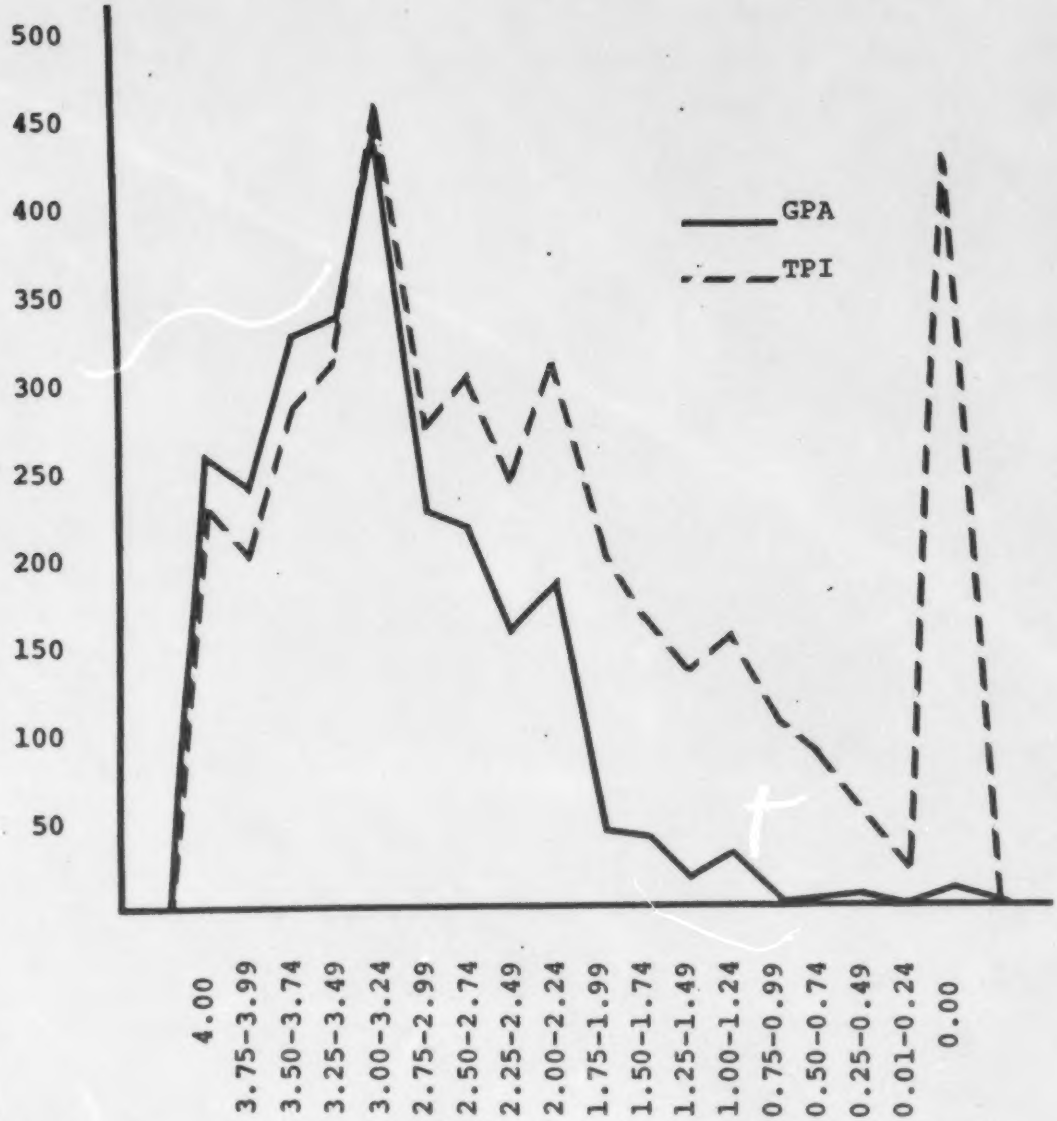


Figure 3

Performance of the Full-Time Students

When the distributions are contrasted, one of the primary differences that can be observed is in the number of students classified full-time. Because the hours of registration were used to compute the TPI, the 4,004 students who began the term with 12 or more semester hours were still in the full-time category at the end of the term. Since all credits for which "I" and "W" grades were recorded were eliminated from the hours attempted total used to compute the grade point average, fewer than two-thirds (63.7%) of the students who began the term with full course loads were still in that classification at the end of the term.

The second major difference is in the number of students on the 0.00 interval which, for both performance averages, means the students passed none of their courses. However, to be placed on this interval for the grade point average (GPA) distribution (Table 3), a student must have received "F" grades for 12 or more semester hours. Since relatively few "F" grades were assigned (Figure 1), only six students terminated the semester in that condition. The 0.00 interval of the TPI distribution (Table 4) also contains the students who did not pass any of their courses, but for this index the nonpunitive "I" and "W" grades were included in the computation; consequently, 431 students completed the term with TPI averages of 0.00. The GPA distribution (based on the hours attempted total) shows that only 0.2% of the full-time students (6 of 2,552) failed to pass one or more of their courses, while the TPI indicates that 10.8% (431 of 4,004) of the students who enrolled full-time passed none of their classes.

In general, the frequency polygons (Figure 3) show that the elimination of the "I" and "W" grades from the academic average caused an upward shift in the performance averages of the students. While both distributions peaked on the 3.00 - 3.24 interval, every TPI interval below that point contained a larger number of students than did the GPA intervals, and there were fewer students on each TPI interval than on the GPA intervals above the modal point. The use of the hours attempted (GPA) rather than the hours of registration (TPI) to compute academic averages, not only resulted in a reduction of the number of students classified full-time, but also caused a general upward shift in the averages and decreased the number of averages below 2.00.

Performance of the Part-Time Students

Part-time students at Brevard Community College have credit hour loads of at least 6, but fewer than 12 semester hours. The same method was used to display the Winter Term (1979) academic averages of these students as was used for the full-time students. Table 5 presents their grade point averages, Table 6 lists their term progress indexes and the frequency polygons are displayed in Figure 4.

Table 5

Performance of the Part-Time Students GPA Base

Academic Average	No "I" or "W" Grades	With "I" or "W" Grades	Total
4.00	581	81	662
3.75 - 3.99	26	11	37
3.50 - 3.74	374	121	495
3.25 - 3.49	125	75	200
3.00 - 3.24	421	164	585
2.75 - 2.99	23	31	54
2.50 - 2.74	236	149	385
2.25 - 2.49	64	98	162
2.00 - 2.24	184	134	318
1.75 - 1.99	11	15	26
1.50 - 1.74	67	81	148
1.25 - 1.49	11	27	38
1.00 - 1.24	21	46	67
0.75 - 0.99	1	6	7
0.50 - 0.74	9	18	27
0.25 - 0.49	0	6	6
0.01 - 0.24	0	0	0
0.00	1	16	17
Total students	2,155	1,079	3,234

Table 6

Performance of the Part-Time Students
TPI Base

Academic Average	Number of Students
4.00	583
3.75 - 3.99	20
3.50 - 3.74	364
3.25 - 3.49	133
3.00 - 3.24	413
2.75 - 2.99	35
2.50 - 2.74	254
2.25 - 2.49	120
2.00 - 2.24	301
1.75 - 1.99	25
1.50 - 1.74	201
1.25 - 1.49	51
1.00 - 1.24	120
0.75 - 0.99	23
0.50 - 0.74	56
0.25 - 0.49	22
0.01 - 0.24	5
0.00	675
Total students	3,401

Most of the part-time students received two letter grades; therefore, the frequency polygons of their term averages tend to form sharp peaks on the .00 and .50 intervals.

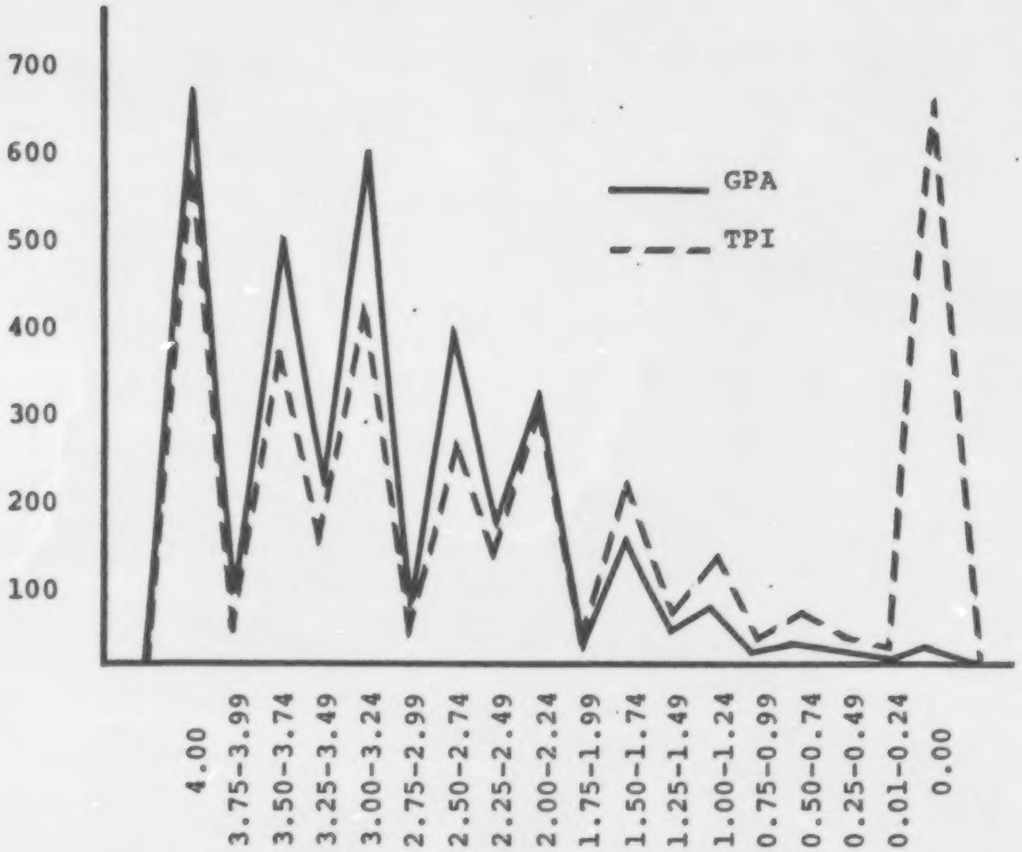


Figure 4

Performance of the Part-Time Students

The GPA and TPI frequency polygons of the part-time students (Figure 4) reflect the same relationships as were observed for the full-time students (Figure 3). The pivotal interval for the polygons was lower (1.75 - 1.99) for the part-time students than it was for the full-time students (3.00 - 3.24), but the same upward shift of the GPA-based average was apparent. Again, there was a spectacular difference between the number of students on the 0.00 interval for the two averages.

Table 6 shows that 3,401 students began the term with from 6 to 11 credit hours, and Table 5 shows that 3,234 students were in this load group at the end of the term; a much smaller difference than for the full-time students. While some full-time students had their hours attempted reduced to zero at the end of the term (Table 9), many others migrated to the part-time and less-than-part-time classifications. Consequently, some of the part-time students who moved to lower load classifications were replaced by full-time students moving into this category.

Since the full-time students who received some "I" and/or "W" grades are the ones who became part-time students at the end of the term, these students could be the primary cause of the large percentage (1,079 of 3,234 or 33.4%) of the part-time students who received one or more of these grades (Table 5) compared to 19.0% (484 of 2,552) of the full-time students (Table 3). Also it is possible that the higher percentage of involvement with "I" and "W" grades, which will lower the term progress index (TPI) but not the grade point average (GPA), is the cause of the lower pivotal interval of the frequency polygons for the part-time students (Figure 4) than for the full-time students (Figure 3).

Performance of the Less-Than-Part-Time Students

All students with at least one but fewer than six semester credit hours are included in the less-than-part-time group. Grade point averages for these students are listed in Table 7 and their term progress indexes are in Table 8. Since most of the courses at Brevard Community College carry three or more credit hours (Table 15, Appendix D), the majority of the students in this category, particularity those who began the term as less-than-part-time students, received one letter grade. This high proportion of one course enrollments caused the frequencies in the academic average tables to clump on the even (.00) intervals.

Table 7

Performance of the Less-Than-Part-Time Students
GPA Base

Academic Average	No "I" or "W" Grades	With "I" or "W" Grades	Total
4.00	870	220	1,090
3.75 - 3.99	9	0	9
3.50 - 3.74	9	1	10
3.25 - 3.49	22	5	27
3.00 - 3.24	478	220	698
2.75 - 2.99	2	2	4
2.50 - 2.74	8	9	17
2.25 - 2.49	13	10	23
2.00 - 2.24	212	127	339
1.75 - 1.99	0	1	1
1.50 - 1.74	2	5	7
1.25 - 1.49	2	1	3
1.00 - 1.24	32	59	91
0.75 - 0.99	0	1	1
0.50 - 0.74	1	1	2
0.25 - 0.49	0	0	0
0.01 - 0.24	0	0	0
0.00	34	136	170
Total students	1,694	798	2,492

Table 8

Performance of the Less-Than-Part-Time Students TPI Base

Academic Average	Number of Students
4.00	939
3.75 - 3.99	4
3.50 - 3.74	10
3.25 - 3.49	13
3.00 - 3.24	504
2.75 - 2.99	1
2.50 - 2.74	3
2.25 - 2.49	13
2.00 - 2.24	206
1.75 - 1.99	0
1.50 - 1.74	11
1.25 - 1.49	4
1.00 - 1.24	53
0.75 - 0.99	4
0.50 - 0.74	2
0.25 - 0.49	1
0.01 - 0.24	0
0.00	773
Total students	2,541

To avoid the extreme peaks and valleys that frequency polygons for this data would have, the academic averages were combined into grade performance levels and depicted on a bar diagram.

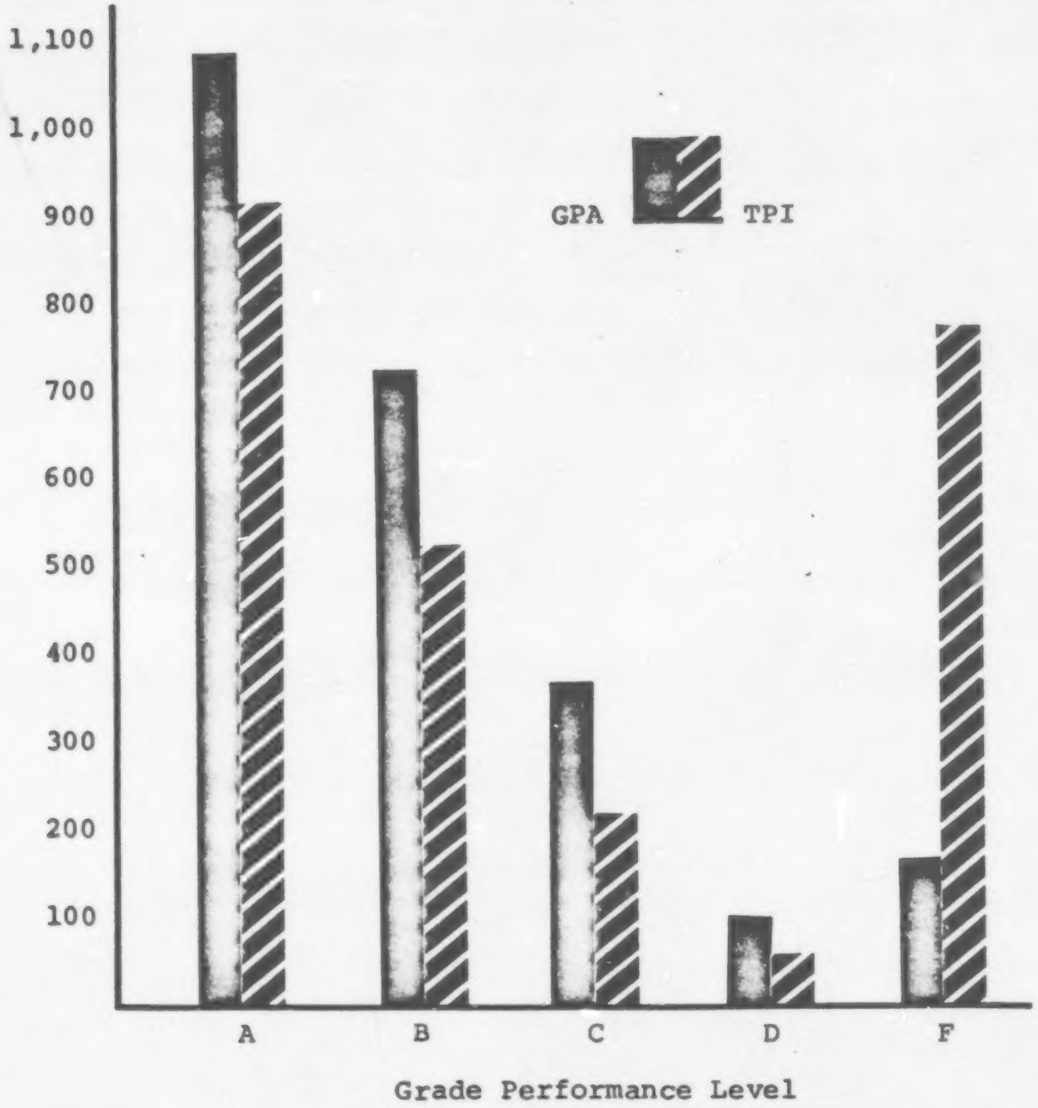


Figure 5

Performance of the Less-Than-Part-Time Students

For the less-than-part-time category, the difference between the beginning (Table 8) and end of term (Table 7) student counts was small. The 701 students who enrolled as less-than-part-time students, but who ended the term with zero hours attempted (Table 9) were largely replaced by students who down-graded their full and part-time credit loads. The percentage of less-than-part-time students with "I" and/or "W" grades (798 of 2,492 or 32.0%) was approximately the same as for the part-time students (33.4%).

The number of students at each grade performance level (Figure 5) was higher for the GPA than for the TPI except for the "F" level. Once again, the largest difference between the two averages was observed at the lowest academic level. This performance pattern was similar to the ones observed for the full and part-time students.

Students with Zero Hours Attempted

Some of the students in each category withdrew from, or were assigned nonpunitive no-pass grades in all their courses. Table 9 gives the number of students in each load group at the beginning of the term and the number from that group who terminated the semester with zero hours attempted.

Table 9

Number of Students with Zero Hours Attempted
GPA Base

Beginning of the Semester		Zero Hours Attempted	
Classification	Number	Number	Percent
Full-time	4,004	379	9.5%
Part-time	3,401	588	17.3%
Less-than-part-time	2,541	701	27.6%
Total students	9,946	1,668	16.8%

As would be expected, the percentages of the students with zero hours attempted, increased from the full-time group to the less-than-part-time group. The students with small beginning of the term credit hour loads needed to experience difficulty with only a few courses in order to have their hours attempted reduced to zero. An important point regarding the 1,668 students is that even though they passed none of the courses for which they had enrolled, the end-of-term influence on their grade point averages was the same as it would have been had they not enrolled for the Winter Term of 1979.

Student Performance--Summary

For each of the three credit hour load categories, the distribution of the term academic averages based on the hours attempted total (GPA) was higher than the distribution based on the hours of registration (TPI). The number of students who ended the term in the full-time classification was considerably smaller than the beginning of the term counts. The end of term classifications for the part-time and less-than-part-time students were mixtures of the averages of people who began the term with these load levels and students who began at a higher level but whose grades lowered them into these classifications. At the end of the term, the hours attempted totals of 16.8% of the student body had eroded to zero.

The TPI academic average was based on the hours of registration; consequently, no shifts in classification occurred between the beginning and end of the term. For each of the three load classifications, the distribution of the term progress indexes displayed the performance of the students who had enrolled at that credit level. For example, the less-than-part-time distribution of the term progress index was based on the performance of all students who had enrolled for 1 to 5 credit hours at the beginning of the term. For the grade point average, the distribution for this group was composed of the students who enrolled for less-than-part-time loads, plus some full-time and part-time students who reduced to that level, minus the less-than-part-time students whose hours attempted became zero at the end of the term.

Involvement with Nonpunitive No-Pass Grades

Research Question 4

> What proportion of the students on the Dean's List received one or more "I" and/or "W" grades?

At Brevard Community College the Dean's List is used to recognize the outstanding achievement of the full-time students. To be awarded this status, a student must earn a term grade point average of 3.25 or higher. At the end of the Winter Term of 1979, 1,174 students met this requirement and of these 172 or 14.7% received one or more "I" or "W" grades (Table 3).

Research Question 5

> What proportion of the students on the honors list received one or more "I" and/or "W" grades?

The achievement of the part-time students who earn a term grade point average of 3.50 or higher is lauded by placing their names on the honors list. Table 5 shown that 1,194 of the part-time students qualified for this list and of these 213 or 17.8% received at least one "I" or "W" grade.

Research Question 6

> Was there a difference in the proportion of the students classified full-time, part-time and less-than-part-time at the beginning of the term who received "I" and/or "W" grades in all their courses?

During the Winter Term of 1979, 9,946 students were enrolled in credit courses at the end of the drop period. Since the TPI involves the hours of registration, the sum of the TPI distributions from Tables 4, 6 and 8 equals the term enrollment. The total for the GPA distributions from Tables 3, 5 and 7 is 8,278. The other 1,668 students ended the term with all "I" and/or "W" grades or an hours attempted total of zero. To answer research question 6, regarding a tendency for these students to be concentrated in any particular beginning of the term enrollment classification, the following hypothesis was tested.

> H6 There is no significant difference in the proportion of the students classified full-time, part-time and less-than-part-time at the beginning of the term who received "I" and/or "W" grades in all their courses.

To test the hypothesis, Table 10 was constructed based on the data provided in Table 9 and Chi-square was computed (Appendix E) according to the technique outlined by Guilford (1965:227-236).

Table 10

Beginning of the Term Load Classification VS End of the Term Hours Attempted Total (GPA base)

Classification	Hours Attempted I or Higher	Zero	Total
Full-time	3,625	379	4,004
Part-time	2,813	588	3,401
Less-than-part-time	1,840	701	2,541
Total students	8,278	1,668	9,946

The calculated Chi-square value for the above table was 366.81. With two degrees of freedom, the critical value for Chi-square at the .01 level of significance is 9.21. The hypothesis was rejected. As can be seen in computational Table 10A (Appendix E), the less-than-part-time category produced a greater number of students with zero hours attempted and the full-time classification contained a smaller number than would be expected according to the marginal totals of Table 10. The distributions of the zero hours attempted students among the beginning of the term load classifications was significantly different at the .01 level.

Comparison of the GPA and TPI Systems

Research Question 7

> Will the use of the TPI, rather than the GPA, produce a significant change in the credit load classifications of the students?

While college student populations are usually described in terms of the hours of registration at the beginning of a semester, the measures of academic progress (hours attempted) and quality (GPA) are based on end of the semester enrollment data. To evaluate the degree of change that occurred from the beginning to the end of the semester, the following hypothesis was tested.

> H7 There is no significant difference in the proportion of the students classified full-time, part-time and less-than-part-time based on the hours attempted (GPA base) and the hours of registration (TPI base).

Table 11

Student Classification by Hours Attempted and Hours of Registration

	Hours attempted		Hours registered	
Classification	Number	Percent	Number	Percent
Full-time	2,552	30.8%	4,004	40.3%
Part-time	3,234	39.1%	3,401	34.2%
Less-than-part-time	2,492	30.1%	2,541	25.5%
Total students	8,278	100.0%	9,946	100.0%

The calculated Chi-square value for Table 11 was 175.06 (Appendix E). With two degrees of freedom, the critical value for Chi-square at the .01 level of significance is 9.21. The hypothesis was rejected. The use of the end-of-term hours attempted rather than the beginning-of-term hours of registration produced a significant change in the credit load classifications of the students.

Research Question 8

> Will there be a significant change in the number of students in the various scholarship classifications, if the evaluations are made using the TPI rather than the GPA?

If academic quality is measured in terms of the intent of the student to accomplish as shown by the hours of registration at the end of the drop period, then the performance average should be computed by dividing the earned grade points by the hours of registration rather than the hours attempted. To evaluate the change that would be produced if this concept were implemented, two hypotheses were tested.

> H8a There is no significant difference in the proportion of the full-time students who would be placed on the Dean's List, or in the proportion who would be considered to have achieved at an average, probation or suspension level for the two performance indexes.

Table 12

Performance Classifications of the Full-Time Students

	GPA base		TPI base	
Classification	Number	Percent	Number	Percent
Dean's List (3.25-4.00)	1,174	46.0%	1,038	25.9%
Average level (1.75-3.24)	1,283	50.3%	1,807	45.1%
Probation level (1.00-1.74)	85	3.3%	454	11.3%
Suspension level (0.00-0.99)	10	0.4%	705	17.6%
Total students	2,552	100.0%	4,004	99.9%

The calculated value of Chi-square for the above table was 740.09 (Appendix E). With three degrees of freedom, the critical value for Chi-square at the .01 level of significance is 11.34. The hypothesis was rejected. The use of the hours of registration (TPI) rather than the hours attempted (GPA) produced a significant change in the scholarship classifications of the full-time students.

> H8b There is no significant difference in the proportion of the part-time students who would be placed on the honors list, or in the proportion who would be considered to have achieved at an average, probation or suspension level for the two performance indexes.

Table 13

Performance Classifications of the Part-Time Students

	GPA base		TPI base	
Classification	Number	Percent	Number	Percent
Honors list (3.50-4.00)	1,194	36.9%	967	28.4%
Average level (1.75-3.49)	1,730	53.5%	1,281	37.7%
Probation level (1.00-1.74)	253	7.8%	372	10.9%
Suspension level (0.00-0.99)	57	1.8%	781	23.0%
Total students	3,234	100.0%	3,401	100.0%

The calculated value of Chi-square for this table was 735.36 (Appendix E). With three degrees of freedom, the critical value for Chi-square at the .01 level of significance is 11.34. The hypothesis was rejected. The use of the hours of registration (TPI) rather than the hours attempted (GPA) produced a significant change in the scholarship classifications of the part-time students.

Research Question 9

> Will there be a significant change in the number of less-than-part-time students at each grade performance level for the two performance indexes?

Since the majority of the less-than-part-time students were enrolled for one course, and no recognition is given for outstanding achievement (such as the Dean's and honors lists), grade performance levels were used in place of the academic achievement classifications that were used for the full and part-time students.

> H9 There is no significant difference in the proportion of the less-than-part-time students achieving at each grade performance level for the two performance indexes.

Table 14

Grade Performance Level of the Less-Than-Part-Time Students

	GPA base		TPI base	
Grade level	Number	Percent	Number	Percent
A (4.00)	1,090	43.7%	939	37.0%
B (3.00-3.99)	744	29.9%	531	20.9%
C (2.00-2.99)	383	15.4%	223	8.8%
D (1.00-1.99)	102	4.1%	68	2.7%
F (0.00-0.99)	173	6.9%	780	30.7%
Total students	2,492	100.0%	2,541	100.1%

The calculated value of Chi-square for Table 14 was 482.11 (Appendix E). With four degrees of freedom, the critical value for Chi-square at the .01 level of significance is 13.28. The hypothesis was rejected. The use of the hours of registration (TPI) rather than the hours attempted (GPA) produced a significant change in the grade performance levels of the less-than-part-time students.

Summary

For all student classifications, the grade point average portrayed a higher student performance level than did the term progress index. For each student group, the largest observed difference between the two averages was at the lowest achievement level. Of the students recognized for outstanding achievement at the end of the term (GPA base), 14.7% of those on the Dean's List and 17.8% of the students on the honors list received at least one nonpunitive no-pass grade. A significantly greater (.01 level) proportion of the part-time and less-than-part-time students ended the term with zero hours attempted than did the full-time students. Compared to the GPA, the TPI would cause a significant change (.01 level) in the number of students in each of the credit load classifications as well as in the number of students who would be in each of the scholarship categories in use at Brevard Community College.

Faculty Preferences

After the final grades for the Winter Term of 1979 were on file, a questionnaire (Appendix C) was distributed to the 202 full-time instructors. The 137 forms returned contained responses for the individual topics for from 61% (124) to 68% (137) of the full-time faculty members employed during the term. The number responding to each topic on the questionnaire as well as the number and percentage of the respondents selecting each alternative is displayed in Appendix F. A topic by topic summary follows.

Questionnaire Results

End-of-term grades. Over two-thirds (66.4%) of the instructors felt that "F," "I" and "W" should be available as end-of-term, no-pass, instructor-assigned grades. Included in this group were the 29.9% who said the "W" should be coded (or a different letter used) to show the grade was assigned at the end of the course rather than during the term. Nonpunitive no-pass grades ("I" and "W" only) were selected by 5.1% and punitive ("F" and "I" only) by 28.5% of the faculty.

Computation of term and cumulative GPA. The responses were nearly equally split for including and excluding end-of-term "W" grades (with the same value as "F") in the computation of GPA's; 48.1% for exclusion and 45.9% for inclusion. The latter group contains the 27.1% who favored including "I" as well as "F" and "W" grades in the computation. The smallest group (6.0%) preferred using passing grades only for this purpose.

Repeating courses. The most frequently chosen alternative (45.9%) would allow students to repeat a course in order to change the grade if the previous grade was "D," "F," "I" or "W." The next largest group (25.2%) favored giving the option for any grade below "A" while 21.5% thought the opportunity to repeat a course in order to change a previous grade should be limited to no-pass grades

("F," "I" and "W"). When courses are repeated, 43.1% indicated that only the last grade earned should be reflected in the GPA, 27.7% elected the higher of the two grades and 29.2% thought both should be used.

Incomplete grades. The majority of the instructors (54.7%) thought it should be possible to change an "I" grade to a passing grade no later than the end of the next regular term. A one year time period was selected by 29.9%; two years by 5.1%; and 10.2% thought no time limit should be involved. When it was assumed that a time limit would be specified, 38.8% favored replacing the expired "I" grade with an "F," 29.1% thought it should be changed to a "W" and 32.1% said it should remain on the record as an "I."

Variable length courses. Less than one in five of the 133 who answered this item (19.5%) were personally involved in teaching variable length courses. Of these 26 people, 13 felt the need for an "in-progress" grade and 13 said such a grade was not needed.

Dean's List and honors. The majority of the faculty (52.2%) believed the end-of-term, no-pass grade of "W" should be included in the computation of the term GPA for the purpose of determining eligibility for the Dean's and honors lists. Included in this figure are the 30.6% who favored including both the "I" and "W" grades for this purpose. The present policy of using only "F" grades was checked by 43.3% and 4.5% felt that academic recognition should be based only on the passing grades.

When asked regarding the establishment of requirements in addition to the term GPA, 40.6% believed this should not be done. The majority of the faculty (59.4%) said an "F" grade should disquality the student, that an end-of-term "W" should disquality was agreed to by 37.6%; half of the latter group (18.8%) thought an "I" as well as a "W" should disqualify a student. That any no-pass grade ("F," "I," "W" or a withdrawal during the term) should prevent a student from being placed on one of these lists was the option chosen by 21.8% of the faculty.

Probation. More than four of five faculty members (83.7%) said low achieving students should be placed on formal academic probation. Of those favoring probation, the majority (81.3%) felt this would cause the student to work harder in an attempt to improve his/her grades and a minority of the group (20.6%) believed it would decrease the possibility that the student would continue to attend college. Of the 22 instructors who favored the abolishment of probation, 63.6% thought the practice discourages students and decreases the likelihood that they will attempt to improve their grades and 72.2% of these people believed it also decreased the possibility of a student continuing to enroll at the college.

Only one of the 133 instructors responding to the item felt there was no need to provide diagnostic testing and counseling services for probation level students. The majority (85.7%) said the college should take an active role in extending these services to probation students with 47.4% favoring the requirement that all probation level students must talk with a counselor. The 38.8% who did not agree to requiring counseling did say they thought the college should contact each student to offer the service. The remainder of the respondents (13.5%) said counseling should be available on a student request basis.

Suspension. Most instructors (61.8%) agreed that after a reasonable period of time on academic probation those students who still have not improved their grades should be required to stop attending college for a designated period of time.

Research Question 10

> What are the preferences of the majority of the full-time faculty members regarding the use of the various no-pass grades, the methods of computing GPA's and the use of the academic achievement categories?

The following statements reflect the modal responses of the instructors on the questionnaire. The provisions of this "faculty preference policy" that are underlined are different from the grading policy that was in effect at Brevard Community College during the Winter Term of 1979.

END-OF-TERM GRADES

Instructors may assign "F," "I" and "W" on the end-of-term grade rolls (66.4%).

COMPUTATION OF TERM AND CUMULATIVE GPA

The courses for which "F" grades were received will be included in the computation of the grade point average (94.0%). The courses in which "I" and "W" grades were received will not be included in the computation of this average (48.1%).

REPEATING COURSES

A student may repeat a course for the purpose of changing the grade in that course if the previous grade was "D," "F," "I" or "W" (45.9%). Only the last grade earned in a course which has been repeated will be included in the computation of the grade point average (43.1%).

INCOMPLETE GRADES

An "I" grade may be changed by the instructor no later than the end of the next regular term (54.7%). If no change is initiated by that time, the "I" grade will revert to an "F" (38.8%).

DEAN'S LIST AND HONORS

Full-time students with a term grade point average of 3.25 or higher will be placed on the Dean's List. Part-time students with a term grade point average of 3.50 or higher will be placed on the honors list. All end-of-course "W" grades will be included in the computation of the term grade point average for this purpose (52.2%). Students who receive "F" grades will not be placed on the Dean's or honors lists (59.4%).

PROBATION

When a student's grade point average falls below 1.75, he or she will be placed on academic probation. Each student placed on academic probation is required to meet with a college counselor (47.4%).

SUSPENSION

After being placed on academic probation students who do not show progress toward graduation will be suspended (61.8%).

Research Question 11

What grading techniques are being used by the full-time faculty?

Of the five techniques of grading described on the questionnaire, a single grading method was checked by 119 of the 136 instructors who responded to this item. Of these, more than three-fourths (76.5%) said they used criterion referenced grading. Norm referenced grading and contract grading tied for second place with 10.9% each. Two instructors (1.7%) selected improvement grading and none checked effort grading. Combination systems were claimed by 17 instructors. Within this group, the criterion referenced method, combined with one or more other systems, was chosen by 13 of the 17 faculty members (76.5%). Improvement grading was the second most frequently used in combination with other methods (11); norm referenced grading was in third place (9). Two instructors said their grading system was a synthesis of all types and two others selected a combination of improvement and effort grading. A table displaying the various combinations selected by the 17 faculty members is included with the questionnaire results in Appendix F.

Summary

For the Winter Term of 1979, the letter grade distribution was "U" shaped and "A" was assigned more often than any other grade. The no-pass grades of "F," "I" and "W" were recorded for 25.8% of the credit hours. A total of 21,201 semester hours of registration (23.8%) did not have an influence on student grade point averages.

The term grade point averages of the students in all credit load classifications were positively skewed. The use of the hours of registration (TPI) rather than the hours attempted (GPA) to summarize academic performance would cause a significant change in the number of students in each course load and scholarship classification.

According to the survey, the majority of the faculty members are using criterion referenced grading methods. In general, support was found for existing grading practices; however, several areas of disagreement between present policies and the modal preferences of the instructional faculty were noted.

Chapter 5

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

This chapter is organized into the same three divisions used to present the findings of the study: the term grade profile, student achievement and faculty preferences. Each of these sections includes a discussion of the data, the conclusions that were reached and several recommendations.

Term Grade Profile

Discussion

The distribution of the passing grades ("A" - "D") for the Winter Term of 1979 at Brevard Community College was highly skewed in a positive direction (Figures 2 and 3). High grades ("A's" and "B's") comprised 55.8% of all letter grades awarded, only 2.0% of the assigned grades were "F's" (Table 15, Appendix D), and the term composite "assigned" grade point average was 3.02. In recent years, authors have cited grade distributions similar to this one as proof that there has been a trend on the part of college instructors to award higher and higher grades (Moulds, 1974; White, 1975). While most writers blame grade inflation on a permissive educational philosophy plus the adoption of nontraditional grading methods, recently Malcolm Schully (1979) has charged that some faculty members have deliberately inflated their course grades to encourage high student enrollments in their courses or department. Schully expressed the fear that many "standards" will be compromised as colleges attempt to maintain their enrollments in the face of a declining student market. While the observed distribution of letter grades at Brevard Community College could be interpreted as an indication of low academic standards, grade inflation or enrollment buying, a more positive viewpoint may be equally valid.

During the early 1970's, an extensive in-service training program was conducted at Brevard Community College to encourage instructors to adopt competency-based teaching methods. At the college's expense, faculty members observed systematic instructional programs at other institutions, consultants were provided to assist instructors as they designed their programs, classes were conducted to teach the use of behavioral objectives and the principles of criterion referenced testing, and teaching assignments were reduced to provide time for the development of course materials. The educational philosophy promoted during this staff development effort is still reflected in the list of instructional responsibilities which specifies that each instructor will "develop and distribute to students specific course objectives...and inform students in writing as to the grading system utilized..." (BCC Policies and Procedures Manual, 1979, Sect. 204, p. 14). The high proportion of the full-time faculty members who noted on the survey (Appendix F) that they were using criterion referenced (76.5%) or contract (10.9%) grading systems is testimony to the success of this major in-service training program.

The heavy emphasis on the use of systematic instructional techniques and competency-based education at Brevard Community College has likely been a significant factor in causing the "U" shaped grade distribution displayed in Figure 2. A significant increase in the proportion of high grades is an expected outcome of the application of a systematic approach to instruction. Born (1970) reported that the use of mastery learning systems and criterion referenced grading methods consistently resulted in fewer low and more high grades and caused the grade distribution to shift from a "normal" pattern toward a skewed configuration. At Western Michigan University the implementation of an audio-tutorial mastery system caused a 20% increase in the number of "A" grades and Montgomery College (Maryland) reported that their mastery students were approximately "100 points" beyond their conventional students (Milton, 1973). While some view the practice of setting achievement requirements for each grade and, awarding an "A" (or other passing grade) to every student who has achieved the goal, as a corruption of the sorting function of educational institutions (Mayville, 1975), others have pointed out that if instructional objectives are used and students' performance is analyzed for each learning objective, the instructor will be able to increase his or her teaching effectiveness and; therefore, the general level of student achievement will increase (Banathy, 1969; Tuckman, 1975).

Several investigators (Ehrlick & Ellis, 1975; Tschechtelin, 1975) have reported that the adoption of nonpunitive, no-pass grading increases the number of no-pass grades assigned. Instructors apparently are more willing to assign a no-pass grade when the student's general academic standing or enrollment privilege is not jepardized by the grade recorded. In a study of the grades given at the end of the Fall Term of 1978 at Brevard Community College, it was reported that only 8.8% of the end-of-term, instructor-assigned, no-pass grades were "F's" (Whitney, 1979). It is likely that the extensive use of the nonpunitive grading option by the instructors of this college was a major factor contributing to the observed high proportion of no-pass course terminations (25.8% of the credit hours) and the low use of the "D" grade (3.7% of the credit hours) at the end of the Winter Term of 1979 (Table 16, Appendix D).

While contract and criterion referenced grading techniques require that student performance levels for each grade be defined prior to instruction, the use of these methodologies does not assure that the various instructors of the same course are using similar criteria for a given letter grade or that the criteria being used represents a realistic level of achievement for the grade (Tuckman, 1975). It has been verified that the same final grades assigned by different teachers are frequently based on very different performance standards (Kirschenbaum et al., 1971) and Garrison (1979) has shown that standards vary from teacher to teacher within the same subject.

In an attempt to insure that all sections of a course taught at the various instructional centers of this college offer comparable educational experiences, Brevard Community College, has developed course plans for each subject. Instructors are directed to develop their instructional objectives in accordance with the approved course plan (BCC Policies and Procedures Manual, 1979). While the content of the various sections of a course may be similar and, at the present time course-wide final examinations are being considered, no attempt has been made to assure that the letter grades assigned by different instructors represent equivalent levels of achievement. Each faculty member assigns his or her grades in relative isolation. Instructor, course or department grade distributions are not made available to division chairpersons, instructors or students. In a similar situation Haughey (1977) found that two-thirds of the faculty members believed their grade distributions were not typical of those assigned by the other teachers in the school. At Brevard Community College it is highly unlikely that a given grade assigned in a course by an instructor using a criterion referenced scale, and an instructor of the same course who used norm referenced or improvement grading techniques, would represent parallel levels of academic achievement.

Conclusions

No information regarding the levels of academic achievement on the part of the students that resulted in the assignment of grades is provided by the shape of the term grade distribution, the frequency of assignment of each of the available letter grades or the "assigned" term grade point average. The extensive use of systematic and competency-based instructional techniques, the faculty's preference for distribution-free grading methodologies, plus the heavy use of the nonpunitive, no-pass grading option likely made a significant contribution to the observed "U" shaped term letter grade distribution (Figures 2 and 3). However, this does not rule out the possible existence of a general grade inflation factor, attempts on the part of faculty members to buy enrollment with high grades or the use of unrealistically low achievement standards by some or most of the instructors.

Recommendations

It is recommended that an effort be made to insure that the level of achievement required for each letter grade is appropriate for that grade in the judgment of the majority of the instructors of the subject and in the light of the educational standards and philosophy of the institution. It is also recommended that the college continue its effort toward quality assurance through the use of college-wide course plans and instructional objectives and that in addition to this, consideration be given the desirability of making use of course-wide or department level achievement tests, grading methodologies and grade scales.

It is recommended that no policy or procedural changes be made in an attempt to directly influence the distribution of the grades being assigned at this college. From his exhaustive review of the grading literature, Warren (1971) concluded that there has been excessive concern over the record-keeping details, the symbols used for grading and the predictive value of grades while substantive issues have largely been avoided. If any of the features of the grade distribution are judged to be undesirable; the high no-pass rate or the large percentage of "A" and "B" grades, all efforts to change this pattern should be directed toward defining and implementing the use of appropriate achievement levels for each letter grade and to the development of programs to assist students who experience difficulty reaching the standards set for passing grades.

Student Achievement

Discussion

There have been frequent references in the literature of the past several years to the general rise in students' grade point averages and many studies have found the increase to be directly proportional to the use of pass-fail and other nontraditional grading practices (Chase, 1973; Davidovicz, 1972; Delohery & McLaughlin, 1971; McLaughlin, 1972;

Wisconsin University, 1973). Robert Jacobson (1978) expressed the belief that grade inflation has resulted less from changes in the standards used to award passing grades than from policies which allowed students to drop courses without penalty well into the academic term.

At Brevard Community College, during the Winter Term of 1979, students were allowed to voluntarily withdraw during the first 14 weeks of the 16 week term and most instructors assigned their no-pass students the "W" or "I" rather than the "F" at the end of the term. Since students' term grade point averages are based on the passing and "F" grades, 23.8% of the credit hours of registration did not influence these averages (Table 2). When the term grade point averages (GPA) of the students were compared with a comprehensive academic average based on the hours of registration at the beginning of the term (TPI), significant differences (.01 level) were found between the number of students in each of the four scholarship categories in use at this college. For each credit-load group (full-time, part-time and less-than-part-time) the grade point average displayed a higher level of student performance than was described by the term progress index (Figures 3, 4 and 5).

All of the observed differences between the credit-load and academic performance groups based on the GPA and TPI academic averages were caused by the elimination of nearly all of the no-pass grades from the computation of the grade point average. When all "F" grades were eliminated from the students' academic averages at Harford Community College (Maryland), Tschechtelin (1975) reports there was an increase in the proportion of the students with high grade point averages and a reduction in the proportion with low averages. The liberal voluntary withdrawal policy plus the partial elimination of the "F" grade at Brevard Community College seems to have produced a similar effect. For the Winter Term of 1979, each of the high academic categories had a larger proportion of the students and each of the low categories had a lower proportion of the students in that category for the grade point average than for the term progress index (Tables 12, 13 and 14).

When a grading policy includes nonpunitive or "escape" provisions, it is not surprising that students use these options to manage their grade point averages. Rick Nations (1973) reported that the students he interviewed at Florida State University openly admitted they used the provisions of that institution's grading policy to maintain or protect their grade point averages. For all student groups, the differences in performance as measured by the grade point average and the term progress index were the largest at the probation and suspension levels of achievement (Figures 3, 4 and 5). While the majority of the low achieving students seem to have selected instructors known to use nonpunitive no-pass grades or to have voluntarily withdrawn from the classes of those likely to give an "F," many students with high grade point averages also received some "I" and "W" grades (Tables 3, 5 and 7). Of the 1,174 full-time students on the Dean's List, 14.7% received one or more "I" or "W" grades and 17.8% of those on the honors list recorded one or more nonpunitive no-pass grades. Some of the students on the Dean's and honors lists may have been rewarded for their ability to manage their grade point average as well as their level of academic performance in the courses they completed. The following grade report from the Winter Term of 1979 portrays this possibility.

Course	Grade	Hours Attempted	Grade Points
Principles of Economics	W	0	0
Business Management	W	0	0
Marketing Principles	A	3	12
Marketing Practice	A	3	12
Business Statistics	W	0	0
		6	24

GPA = 4.00

Placed on the honors list for excellent achievement

This student started the term as a full-time student and passed only two of five courses (6 of 15 credit hours), the removal of 9 hours from the hours attempted used to compute the term grade point average lowered the load classification to part-time and the remaining 6 hours of "A" qualified him for the honors list. While it is not possible to determine the motivation of the student, this grade report does show the possibility that a high grade point average could be achieved or maintained by a student through the use of the withdrawal provisions of the existing grading policy at Brevard Community College.

The degree to which the Dean's and honors lists were inflated by students skilled in avoiding "F" dispensing instructors and the use of the voluntary withdrawal is unknown, but there is little question that many students did use these methods to avoid the probation and suspension lists. Less than three-fourths (70.4%) of the credit hours for which students registered at the beginning of the Winter Term of 1979, were awarded "A," "B" or "C" grades (Table 16, Appendix D), but only a small proportion of the students in each load group (GPA) had term averages at the probation or suspension levels (Tables 12, 13 and 14).

While term grade point averages are used to reward outstanding achievement, cumulative grade point averages are used to define the probation and suspension classifications. This compounds the difficulty of using these lists to identify marginally achieving students since they are eligible for these conditions only after the hours attempted total is 12 or more. Consequently, a student may attend many terms, experience little success, and still avoid the attention of the student personnel counselors. The very small percentages of the student body actually placed on probation or suspension (Table 1), the "persistence without progress" transcripts displayed in Appendix B, and the relatively large number of drop-outs during the term (Table 9) demonstrates that the use of these categories to identify low achieving students is of doubtful validity.

Honors, probation and suspension were developed as part of the traditional grading system at a time when norm referenced grading was prominent. In this system, the relative standing or rank-order of the student in his/her class was frequently part of the academic record. Under this educational philosophy, students competed with each other for a limited number of passing grades and the losers were warned to do better (probation) or eliminated from further competition (suspension). As the use of nontraditional and criterion referenced grading practices increased, the meaning of the traditional achievement classifications became increasingly vague. Colleges, such as Santa Fe Community College (Florida), which adopted totally nonpunitive grading policies, eliminated the awarding of honors as well as the infliction of probation and suspension. However, as shown by Collins and Nickel (1974), during the nontraditional movement, most colleges (including Brevard Community College) inserted a few nontraditional features into their grading policies, but did not change most of their traditional practices.

The grading policy of a college should be internally consistent and reflect the educational philosophy of the institution. At the present time some colleges are clinging to the "it is rewarding to win and safe to try" philosophy, typical of the nontraditional movement, while others are reacting to the charge that standards are down by reinstating traditional grading practices including the stigmatizing of marginally performing students with the probation label and removing the enrollment privileges of others through the use of suspension. For example, Miami-Dade Community College (Florida) recently installed its "SOAP" (Standards of Academic Progress) program which required a student to have a minimum grade point average of 1.50 over the first 30 hours of registration. This change in the computational base from the hours attempted to the hours of registration resulted in the placement of 2,002 students on probation and the suspension of 2,512 others at the end of the Winter Term of 1979 (FACC Current, 1979).

Whether the transcript of the student should be a historical record of his/her course registrations or reflect only the credits earned and, whether the academic average should be based on the hours of registration or hours attempted, is a question that cannot be answered by the data presented in this paper. Each college must select a grading methodology that is consistent with the goals of that institution. At the present time, the mixed system in use at Brevard Community College lacks internal consistency and does not provide an effective measure that could be used to identify marginally performing students for the purpose of warning them, eliminating them or assisting them. This study has shown that most of the low achieving students are being missed by the screening devices that are part of the present grading system of this college.

While it is doubtful if a comprehensive academic average, such as the term progress index, should be substituted for the existing grade point average on students' grade reports and transcripts at Brevard Community College, there are persuasive arguments in favor of the use of this index in all institutional studies requiring a measurement of student achievement. As demonstrated in this study, a significant shift takes place in the credit load classifications of the students and in their term academic averages if the hours attempted, used to compute grade point averages at the end of the term, are substituted for the hours of registration used to describe the student body at the beginning of the term. If student achievement is to be used to measure instructional efficiency, the effectiveness of a course or a program of study, or to evaluate the validity of a placement test, the point of reference cannot be shifted between the beginning and end of the term. This does not mean the individual students who did not accomplish need to be labeled or punished, but the data for the students who did not pass, regardless of the nature of the grade assigned, cannot be dropped from the performance measurements for the term. This lack of achievement is an equally important outcome of the term's registration as the achievement of the students who passed all their courses. To drop performance data, particularly at only one end of the distribution, is to hide important instructional outcomes and to reduce the heterogeneity of the data. As stated by Anne

Anastasi (1965:128):

> A special difficulty encountered in many samples arises from preselection. The range of such a group in both test scores and criterion measures will be curtailed at the lower end of the distribution. The effect of such a preselection will therefore be to lower the validity coefficient.

It is suggested that institutional studies conducted at Brevard Community College which used the grade point average as a measurement of student achievement are of doubtful utility because of the preselected nature and restricted range of this academic index.

Conclusions

The liberal withdrawal provisions of the grading policy and, the practice of excluding the nonpunitive no-pass grades from the computation of the grade point average has contributed significantly to the high grade point averages of the students at Brevard Community College. The use of the hours of registration to compute the academic average (TPI) rather than the end-of-term hours attempted (GPA) caused a significant downward shift in the performance averages of the students in each of the three credit-hour load groups.

The practice of reclassifying students as full-time, part-time and less-than-part-time at the end of the term, based on the hours attempted total, produces a student body profile that is significantly different from the one used to describe the registration pattern at the beginning of the term. The distributions of the term grade point averages of the full-time, part-time and less-than-part-time students (end of the term) do not reflect the achievement of the students who began the term in these credit load groups.

Some students in each beginning of the term credit load group ended the term with zero hours attempted; however, the probability that a student will end the term with zero hours attempted is inversely related to his or her beginning of the term credit load classification. Students at all levels of academic achievement (GPA) received some nonpunitive no-pass grades and it would have been possible for a student to manage or protect his or her grade point average by using the voluntary withdrawal provisions of the grading policy and/or by selecting instructors known to assign nonpunitive no-pass grades.

The grade average as computed at Brevard Community College does not reflect the achievement outcome of all hours for which a student registered and the usefulness of the grade point average or hours attempted total as measures of academic quality or progress in institutional studies is seriously limited. The use of the probation and suspension lists to identify marginally achieving students is ineffective. The inefficiency of this technique is compounded by the practice of evaluating for these conditions only after a student has attempted 12 or more semester hours.

Recommendations

It is recommended that the Faculty Senate review the goals and objectives of the grading and academic record system of Brevard Community College. During this review, it is recommended that particular attention be given to the balance and effectiveness of the various punitive and nonpunitive provisions of the existing policy with the goal of making recommendations that would increase the internal consistency of the policy and insure that all students affected by the policy receive equal and fair treatment. It is recommended that in this deliberation, the extremes of the traditional and nontraditional grading methodologies be used as points of reference. The nontraditional approach of eliminating punitive ("D" and "F") grades, probation and suspension (and perhaps the Dean's and honors lists) and posting only the credits earned on students' transcripts. The traditional system with a short voluntary withdrawal period, the exclusive use of penalty no-pass grades, strict probation and suspension provisions and transcripts which are historical records of all courses for which the student registered. It may be helpful to the individuals charged with the responsibility of evaluating the Brevard Community College grading policy to observe the "fail-safe" system in operation at Santa Fe Community College and the "SOAP" program at Miami-Dade Community College.

It is recommended that regardless of whether the probation and suspension provisions of the grading policy are eliminated, retained in their present form or strengthened, that a term-based performance measure be established and used to identify students who are not earning a significant portion of the credit hours for which they register. It is recommended that this progress index be applied to all students regardless of the number of hours for which they registered or the hours attempted total at the end of the term.

It is recommended that when a measure of academic progress and/or quality is needed in studies of institutional efficiency, instructional effectiveness, placement test validity or other research projects, that the hours of registration and/or a comprehensive academic index, such as the term progress index, be utilized.

Faculty Preferences

Discussion

When the responses of the full-time instructional faculty on the questionnaire (Appendix F) were compared with the provisions of the existing grading policy (Appendix A), few areas of disagreement were found. As shown in the "faculty preference policy" in Chapter 4, if the existing policy were changed to reflect the modal choices of the instructors, only the following changes would be required: expired "I" grades would be changed to "F" rather than becoming the permanent grade for the course as is now the practice; the term grade point average for the purpose of determining eligibility for the Dean's and honors lists (and only for that purpose) would include the end-of-term, instructor-assigned "W" grades (with zero quality points); students who had received "F" grades would not be eligible for the Dean's and honors lists; and each student placed on the probation list would be required to meet with a college counselor. However, if policy changes were implemented only when a majority (rather than a plurality) of the faculty members chose one of the specific alternatives offered on the questionnaire, only the eligibility requirements for the Dean's and honors lists would be changed. This change, plus the vote of confidence given the continued use of probation (83.7%) and suspension (61.8%), would seem to indicate that the faculty would prefer a grading policy that is more traditional than the present one. However, there did seem to be a willingness to allow each instructor the option of using punitive or nonpunitive no-pass grades (66.4%).

On the questionnaire, a high degree of support (85.7%) was given to the use of a college-initiated counseling and testing program for students achieving at the probation level. The desire to offer assistance to these students seems to conflict with the support shown for retaining a traditional probation and suspension requirement. When the opinions of the faculty about the influence of probation on a student's motivation and his/her decision to continue to enroll, were compared for those who said probation should be continued with those who said it should not be continued (Appendix F), the apparent inconsistency was resolved. Of those who said low achieving students should be placed on probation, only 20.6% checked that they thought this would decrease the possibility that the student would continue to attend college. When asked regarding the likely influence of probation on the student's motivation, 81.3% of those favoring probation thought it would cause the student to work harder. Of the instructors who favored discontinuing probation, 63.6% believed being placed on probation would discourage the student and 72.2% of them said it would decrease the possibility that the student would continue to enroll. It appears that the intent of the majority of both groups was to increase the student's motivation to achieve rather than to remove him or her from the institution. If this analysis is correct, the high degree of support found for retaining a formal probation list (83.7%) and for beginning a college-initiated counseling and testing program for probation level students (85.7%) are not in conflict.

Magarrell (1979) summarized data from 3,099 colleges and reported that after 24 years of uninterrupted growth, college populations have declined during the past three years. Shulman (1976) stated that the major problem facing educators in the immediate future will be maintaining adequate student enrollments. In addition to enrollment problems, many colleges are experiencing high dropout rates. Retention statistics have not changed significantly in the last few decades. In general, 30% of the freshmen enrolled in four-year schools will not return as sohpomores and only 40% to 50% of the entering freshmen will graduate four years later. The figures cited for community colleges are considerably lower with as few as 10% of the entering freshmen earning a baccalaurate degree (Activity, 1979). Clark (1960) discovered that many community colleges are fortunate to have 30% of their freshmen return as sophomores.

While there is general agreement that the dropout rate is too high, it appears that many of the available students in the future will be those with the highest tendency to dropout. K. Patricia Cross (1971) points out that the largest reservoir of future attendants will be students who are poorly prepared for college. Magarrell (1979) found that as the full-time college enrollment declined, part-time registrations increased, and many investigators report that part-time students are more likely to dropout than full-time students (Bradley & Lehmann, 1975; Pezzullo, 1978; Wetzel, 1977). This pattern was also observed at Brevard Community College (Table 9).

At the present time, Brevard Community College is implementing a testing and placement program for new students in an attempt to increase their probability of success and to insure their continued enrollment. While it is important to use admission data and test scores to place students, other colleges have reported a poor relationship between entry variables and the tendency to dropout (Eagle, 1973; Vogt, 1977). Consequently, it may be important to closely moniter the actual progress of students and to offer them assistance when they experience difficulty. Cohen (1979) verified that when students receive special attention and treatment, they tend to stay in school and to succeed in their programs. Penn Valley Community College (Missouri) found that the combination of a placement and early intervention program caused a significant decrease in their between-semester attrition rate (Linkages, 1979).

The low use of judgmental and norm referenced grading methodologies at Brevard Community College seems to show that the majority of the instructional faculty place a high value on student achievement and tend to award passing grades to only those students who reach the performance standards set for their courses. This attitude is also reflected in the support given for raising the standards used to award outstanding achievement. Most instructors believe the college should take the initiative and offer assistance to low performing students rather than waiting for the student to request help. Little support was found for eliminating low achieving students from the institution without first assisting the student in his or her effort to achieve. These results indicate that the faculty would welcome a college-initiated program of counseling and remediation designed to assist and retain students who are experiencing academic difficulties.

Conclusions

The questionnaire results show that, in general, the full-time instructors of Brevard Community College support most of the provisions of the grading policy of the institution. While the grading techniques being used by most instructors emphasize achievement, the pattern of responses on the survey reflects a concern for students and a desire to assist them in their efforts to meet the academic standards of the college. It is the opinion of the majority of the instructors that the college has an obligation to offer counseling and testing services to the students who are experiencing academic difficulty.

Recommendations

It is recommended, that in the review of the Brevard Community College grading policy, the areas of disagreement between the present policy and the "faculty preference policy" be given close attention with the goal of recommending a grading policy that not only includes most of the modal choices made by the faculty, but also reflects the general intent of the instructors as shown by the pattern of their responses on the questionnaire as a whole. In addition, faculty members (full and part-time) and students should have an opportunity to react to proposed changes in the grading policy before they are implemented.

It is recommended that a term and cumulative performance measure, based on the hours of registration, be established and used to identify students who are not making significant progress toward graduation. All students falling below a designated level should be contacted by the college and advised of the programs that are available to help them achieve their educational goals. It is suggested that students be evaluated and contacts initiated at the end of each term of enrollment, regardless of the number of hours for which they had registered. The term and cumulative indexes that should be used to initiate a student contact must be based on judgments of what is adequate progress and the capacity of the testing, remediation and counseling programs of the college. It is recommended that the people currently developing the new student placement program be charged with expanding the follow-up features of that program into a career-long student performance evaluation and referral system along the lines recommended in this report.

Report Dissemination

Upon approval by Nova University, this report will be filed with the District Provost for Institutional Advancement at Brevard Community College with a recommendation that copies be made available to the Dean of Instruction and the Faculty Senate. Copies of the document will also be submitted to the U.S. Educational Resources Information Center.

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APPENDIX A

BREVARD COMMUNITY COLLEGE GRADING POLICY

Petitions Committee. Action by the District Board of Trustees on an appeal is final.

E. Waiver confidentiality: A student or parent* may consent to the release of any student information to any person or agency, provided the consent is in writing, signed, dated, specifies the information to be released, the reason for release, and the names of persons to whom the information is to be released.

F. Copies of records: Copies of material in a student's record will be furnished to the student upon request in person or in writing.

G. Directory information: The following information about an individual student is classified as "Directory Information," and may be released upon request. The individual student or parent* has a right to submit a request in writing to the custodian of the student's records that all or any part of the directory information not be releasable.

*See Section H.

1. Name
2. Address
3. Telephone listing
4. Date and place of birth
5. Major field of study
6. Participation in officially recognized activities and sports
7. Weight and height of athletic team members
8. Dates of attendance
9. Degrees and awards received
10. Most recent previous educational agency or institution attended
11. Whether or not the student is currently enrolled at BCC.

H. Rights of parents: Once a student reaches the age of eighteen (18), or is enrolled in a post-secondary program, parents no longer have any rights under this Act unless

1. The student gives written consent to release the information to the student's parents,
   or
2. The parents provide evidence that the student is a dependent of the parents as defined in section 152 of the Internal Revenue Code of 1954.

Further information relating to this Act may be obtained by contacting the Registrar, Brevard Community College, Cocoa, Florida.

SCHOLARSHIP AND GRADING

Scholastic Honors

The Dean's List is published at the end of each term. To be placed on the Dean's List a student must have earned a minimum semester grade point average of 3.25. Only those students registered for 12 or more semester hours of credit (full-time students) will be eligible for the Dean's List.

The Honor List is published at the end of each term. To be placed on the Honor List a student must be enrolled on a part-time basis for at least six semester hours of credit and attain a grade point average of at least 3.50.

Grading System

Letter grades are used to indicate the quality of work done.

Grade	Interpretation	Grade Point Value
A	Excellent	4
B	Good	3
C	Fair	2
D	Lowest Passing Grade	1
F	Failure	0
*I	Incomplete	0
*W	Withdrawal	0
X	Audit	0

*Excluded from computation of grade point average for all students.

Incomplete

The grade of "I" may be given in courses in which the student who, because of extenuating circumstances, has not completed the required course work by the end of the term.

Arrangement for removal of the "I" grade must be made by the student as soon as possible. An "I" grade may be changed to a letter grade by the instructor any time during the next full semester (summer terms are not to be considered in this time limit). If no change is initiated, the "I" grade will remain on the student's permanent record.

Withdrawal

Withdrawals may be initiated by the student, the instructor, or proper College official upon request to the Registrar's office. (On the Melbourne Campus, the Records Office.)

The grade of "W" is assigned when a student voluntarily withdraws or is administratively withdrawn.

Students may voluntarily withdraw up to a specified date two weeks prior to the term end. Withdrawals may be given only after consulting with the instructor. Instructors will inform students in writing of their grading and attendance policy at the beginning of the term, and must notify students immediately upon the determination that absenteeism (usually more than 15% of class hours) is excessive and that satisfactory progress cannot be achieved. Extenuating circumstances must be documented. Last day of attendance and reason for withdrawal shall be indicated on the withdrawal form.

It is the policy of the Veterans Administration that —

Veteran students who withdraw from a class after the normal Add/Drop Period, or are withdrawn by an instructor or other school official, or receive a "W" grade at the end of a term, will be required to repay all benefits received for that particular class(es) unless mitigating circumstances were involved and determined as excusable by the Veterans Administration.

Grade Point Computation

Each letter grade has a point value. A student may determine the grade points for each course by multiplying the number of points the grade is worth times the number of credit hours the course carries. Thus a "B" (worth 3 points) in a three credit hour course is worth 9 points and an "A" (worth 4 points) in the same three credit hour course is worth 12 points.

The grade point average is found by adding the total point values for all courses and dividing by the total number of credit hours attempted during the same period of time.

Example:

ENC 1103	Grade A(4)	Credits(3)	4 x 3 = 12
MGF 1113	Grade F (0)	Credits (3)	0 x 3 = 0
SPN 1100	Grade C (2)	Credits (3)	2 x 3 = 6
	TOTAL	Credits 9	Points 18

18 divided by 9 = 2.0 Grade point average

Students must earn a cumulative GPA in all college work attempted of 2.00 or higher for graduation (a 2.0 in all work at Brevard Community College must be maintained). While a student may earn a cumulative average of 2.0 which includes grades of "D" or "F," it is well to remember that grades below "C" may not be acceptable at some colleges and universities.

Repeating Courses

A course in which a satisfactory grade (A, B, or C) has been earned may not be repeated for grade point purposes.

A course in which an unsatisfactory grade (D or F) has been earned may be repeated. Only the most recent grade is included in the computation of the cumulative grade average at Brevard Community College. Some senior institutions will count all hours attempted and all quality points earned. A course may be counted only once toward meeting graduation requirements except where permitted by course description. (V.A. benefits may not be received for repeat of courses assigned a D grade.)

Audit

A student may register for any course on an audit basis. The full fee for auditing must be paid and no credit or grade for an audited course will be received. There is no limit to the number of times a course may be audited. Audit status in a course may be changed to credit during the normal schedule change time limit at the beginning of each term.

Scholarship Standards

Brevard Community College interprets a "C" average as a satisfactory scholarship standard. (See Grade Points and Grading System.)

Students who fail to maintain satisfactory scholarship may be placed on academic probation and may be dismissed.

Grade Reports

Final grade reports are mailed at the end of each term. The final grade is the only one that appears on the student's permanent record.

Academic Probation

When a student has attempted 12 semester hours of course-work at Brevard Community College and has failed to maintain a cumulative grade point average of at least 1.75, he or she will be placed on academic probation. Students will remain in academic probation status until their cumulative grade point average is 2.00 or higher.

Eligible veteran students whose term grade point average falls below 1.75 may continue course work under the probation policy of the College for one (1) subsequent term only without loss of V.A. Benefits. Failure to maintain a satisfactory term grade point average (as computed above) for two (2) consecutive terms will result in notification to the Veterans Administration of Unsatisfactory Progress.

STUDENT SERVICES

Academic Suspension

After attempting 12 or more semester hours of coursework, students must achieve a cumulative grade point average in accordance with the standards specified below or be subject to academic suspension:

Hours attempted	Suspension if Cumulative Grade Point Average is Lower Than:
12	1.00
24	1.37
36	1.58
48	1.75
60	1.90

Students who have been academically suspended may not register for courses in the same area of study (University Parallel, Technical, Vocational) until they have been out of college for a period of 12 weeks following the effective date of the suspension without written permission from the Director of Student Services.

Transcripts to Other Colleges

A written request for transcript, signed by the student, should be made approximately two weeks before the transcript is needed. The full address to which the transcript is to be sent should be included. An official transcript bearing the College seal and the signature of the registrar will be forwarded directly to other colleges, to prospective employers, to other agencies, or the student at the request of the student. Transcripts will be furnished free.

Appendix B, containing examples of student transcripts, has been deleted due to irreproducibility.

APPENDIX C

FACULTY QUESTIONNAIRE

BREVARD COMMUNITY COLLEGE

MEMORANDUM: April 27, 1979

TO: All Full-Time Instructional Faculty

FROM: Joseph M. Keller
Dean of Instruction

RE: Grading Practices "What Is - What Ought To Be"

Many institutions across the nation are re-examining their "non-punitive" grading practices. About three months ago Mr. Whitney made me aware of a study relating to grading he was considering as part of his doctoral studies. Many items in his study are of interest to me.

My particular interest in this project is the faculty perception of "what ought to be" relative to Brevard Community College grading practices. It would be my intent to take the data resulting from the survey and where the data suggests change formulate alternative policy statements for faculty review.

These policy statements would be submitted to the faculty senate and other appropriate groups for debate and recommendations. These debates and discussions would take place during the fall term.

Please take a few minutes and complete the survey instrument. The completed instrument should be returned to your division office by May 2. The division office will forward the instruments to Mr. Whitney for analysis.

We encourage your participation in this study.

JMK/pc

Attachment

NO-PASS GRADING PRACTICES

Degree Credit Courses Jim Whitney

Please select the one response in each category which best represents your feelings regarding that topic.

END-OF-TERM GRADES

At the present time, "W" grades are assigned if a withdrawal form is filed (by the student, the instructor or other college official) before the last two weeks of a regular term. Assuming that the "W" will continue to be used for this purpose, at the end of the term:

_____ instructors should be allowed to record only the "F" or "I" grade for their failing or in-progress students.

_____ instructors should be allowed to record the "F," "I" or "W" grade for their failing or in-progress students, but the "W" should be coded (or a different letter used) to indicate that it was an end-of-course grade.

_____ instructors should be allowed to record the "F," "I" or "W" grade for their failing or in-progress students.

_____ instructors should be allowed to record only the "I" or "W" grade for their failing or in-progress students.

COMPUTATION OF TERM AND CUMULATIVE GPA

In addition to the courses in which passing grades were earned ("A" through "D"), the following courses should be included in the computation of a student's grade point average.

_____ The GPA should be based on passing grades only. The courses for which "F," "I" and "W" (assigned at the end of the term) grades were recorded should be excluded.

_____ The courses for which "F" grades were recorded should be included. "I" and "W" (assigned at the end of the term) grades should be excluded.

_____ The courses for which "F" and "W" (assigned at the end of the term) grades were recorded should be included. "I" grades should be excluded.

_____ The courses for which "F," "I" and "W" (assigned at the end of the term) grades were recorded should be included.

REPEATING COURSES

Students should be allowed to repeat a course in order to change their grade in the course:

_____ if the previous grade in the course was "F," "I" or "W."

_____ if the previous grade in the course was "D," "F," "I" or "W."

_____ if the previous grade in the course was "C," "D," "F," "I" or "W."

_____ if the previous grade in the course was "B," "C," "D," "F," "I" or "W."

If a course is repeated:

_____ only the last grade earned should be included in the computation of the GPA.

_____ only the highest grade earned should be included in the computation of the GPA.

_____ all grades earned in the course should be included in the computation of the GPA.

INCOMPLETE GRADES

The present BCC grading policy states that an "I" grade may be assigned if the required course work has not been completed at the end of the term.

It should be possible to change the "I" to a passing grade:

_____ no later than the end of the next regular term.

_____ no later than one year from the date the "I" grade was assigned.

_____ no later than two years from the date the "I" grade was assigned.

_____ any time the student has completed the course work--no time limit should be involved.

If there is a time limit beyond which an "I" grade cannot be changed to a passing grade, when that time has expired, the "I" grade should:

_____ be changed to an "F."

_____ be changed to a "W."

_____ remain on the record as an "I."

VARIABLE LENGTH COURSES

Do you teach individual progression or other variable length courses?

_____ Yes _____ No

If yes, do you feel there is a need for an "in-progress" grade (other than "I") that could be assigned at the end of the term to show that the student is still enrolled and making adequate progress toward the completion of the course?

_____ Yes _____ No

DEAN'S LIST AND HONORS

At the present time, full-time students (12 or more hours) must earn a term GPA of 3.25 or higher to be placed on the Dean's List. Part-time students (6 to 11 hours) must earn a term GPA of 3.50 or higher to be placed on the Honors List.

In computing the term GPA for this purpose, in addition to the passing grades:

_____ all "F," "I" and "W" (assigned at the end of the term) grades should be included.

_____ "I" grades should be excluded, but "F" and "W" (assigned at the end of the term) grades should be included.

_____ only the "F" grades should be included.

_____ only the passing grades should be included, all "F," "I" and "W" grades should be excluded.

In addition to the required term GPA, students should not be placed on the Dean's or Honors List if:

_____ their term grade report includes any "F," "I" or "W" (assigned at the end of the term) grades or if the student withdrew or was withdrawn from any courses during the term.

_____ their term grade report includes any "F," "I" or "W" (assigned at the end of the term) grades.

_____ their term grade report includes any "F" or "W" (assigned at the end of the term) grades.

_____ All students who meet the GPA requirement should be placed on the Dean's or Honors List. The existence of "F," "W" or "I" grades on the term grade report should not affect their eligibility.

PROBATION

At BCC, students who have attempted 12 or more hours of course work and have a GPA of less than 1.75 are placed on academic probation.

_____ The practice of placing low achieving students on probation should be discontinued.

_____ Low achieving students should continue to be placed on probation.

Being placed on academic probation is likely to:

_____ cause the student to work harder in an attempt to improve his/her grades.

_____ have little influence on the effort the student makes to improve his/her grades.

_____ discourage the student and decrease the likelihood that his/her grades will improve.

Being placed on academic probation is likely to:

_____ increase the possibility that the student will continue to attend college.

_____ have little affect on the student's decision to continue or stop attending college.

_____ decrease the possibility that the student will continue to attend college.

Regarding counseling and testing services for the probation-level student:

_____ the college should require all students achieving at the probation level to take diagnostic tests and talk with a counselor about the test results.

_____ the college should contact each student performing at the probation level to offer diagnostic testing and counseling.

_____ the college should have diagnostic testing and counseling available for the probation level students who request it.

_____ there is no need to provide diagnostic testing and counseling services for probation level students.

SUSPENSION

If the student has been given a reasonable period of time to improve his or her grades (probation) and is still not making adequate progress toward graduation:

_____ the student should be required to stop attending college for a designated period of time (suspended).

_____ the student should be allowed to continue to attend college.

GRADING METHODS

Which of the following best represents your grading technique?

_____ Grades are based on the achievement level reached by the student compared to an absolute standard established for the course by the instructor (criterion referenced grading).

_____ Each student's achievement is evaluated and graded in terms of the relationship between that student's achievement and the performance of other students in the course (norm referenced grading).

_____ A specified amount of work is required for each letter grade. All students who satisfactorily complete the work receive the grade designated for that amount of work (contract grading).

_____ Grades are based on how much the student improved during the course (improvement grading).

_____ Grades are based on how hard the student tried (effort grading).

APPENDIX D

LETTER GRADE FREQUENCIES
WINTER TERM 1979

The letter grades recorded for the students registered in the credit classes on the three campuses of Brevard Community College at the close of the Winter Term (January - May) of 1979 are shown in Tables 15 and 16. The classes at this college carry from one to ten semester hours of credit. Table 15 shows the distribution of the 29,580 individual letter grades recorded for the courses at each credit hour level. The counts of the letter grades (Table 15) were converted into the number of credit hours for which each letter was assigned (Table 16). The figures and data presented in the "Term Grade Profile" section of Chapter 4 are based on these tables.

Table 15

Number of Grades Assigned

Course Credit Level	Letter grade A	B	C	D	F	I	W	Total Grades
1	996	619	187	46	39	42	412	2,341
2	292	134	69	15	22	50	115	697
3	6,613	5,279	3,184	807	446	975	4,783	22,087
4	1,038	1,146	647	165	58	102	550	3,706
5	116	160	155	31	16	9	82	569
6	40	47	29	2			10	128
8	5	5						10
10	10	19	10	1			2	42
Total Grades	9,110	7,409	4,281	1,067	581	1,178	5,954	29,580
Percent	30.8%	25.0%	14.5%	3.6%	2.0%	4.0%	20.1%	100.0%

Table 16

Credit Hours by Letter Grade

Course Credit Level	Letter grade							Total Credits
	A	B	C	D	F	I	W	
1	996	619	187	46	39	42	412	2,341
2	584	268	138	30	44	100	230	1,394
3	19,839	15,837	9,552	2,421	1,338	2,925	14,349	66,261
4	4,152	4,584	2,588	660	232	408	2,200	14,824
5	580	800	775	155	80	45	410	2,845
6	240	282	174	12			60	768
8	40	40						80
10	100	190	100	10			20	420
Total Credits	26,531	22,620	13,514	3,334	1,733	3,520	17,681	88,933
Percent	29.8%	25.4%	15.2%	3.7%	1.9%	4.0%	19.9%	99.9%

APPENDIX E

CHI-SQUARE COMPUTATIONS

Each of the computational tables in this appendix has the same number (plus an "A" suffix) and title as its corresponding table in Chapter 4. Chi-square was calculated according to the method presented by Guilford (1965:227-236, 582). The following formula was used:

$$X^2 = \sum \frac{(O - E)^2}{E}$$

In the tables, "O" is the observed frequency, "E" is the expected frequency and "X" is the Chi-square factor for the cell.

Table 10A

Beginning of the Term Load Classification VS End of the Term Hours Attempted Total (GPA base)

Classification		Hours Attempted		Total
		1 or Higher	Zero	
Full-time	O	3,625	379	4,004
	E	3,332.5	671.5	
	X	25.67	127.41	
Part-time	O	2,813	588	3,401
	E	2,830.6	570.4	
	X	0.11	0.54	
Less-than-part-time	O	1,840	701	2,541
	E	2,114.9	426.1	
	X	35.73	177.35	
Total students		8,278	1,668	9,946

Hypothesis (H_o) - There is no significant difference in the proportion of the students classified full-time, part-time and less-than-part-time at the beginning of the term who received "I" and/or "W" grades in all their courses.

Chi-square = 366.81

df = 2

Critical value for the .01 level = 9.21

H_o rejected

Table 11A

Student Classification by Hours Attempted and Hours of Registration

Classification		Hours Attempted	Hours Registered	Total
Full-time	O	2,552	4,004	6,556
	E	2,978.0	3,578.0	
	X	60.94	50.72	
Part-time	O	3,234	3,401	6,635
	E	3,013.9	3,621.1	
	X	16.07	13.38	
Less-than-part-time	O	2,492	2,541	5,033
	E	2,286.2	2,746.8	
	X	18.53	15.42	
Total		8,278	9,946	18,224

Hypothesis (H_o) - There is no significant difference in the proportion of the students classified full-time, part-time and less-than-part-time based on the hours attempted (GPA base) and the hours of registration (TPI base).

Chi-square = 175.06

df = 2

Critical value for the .01 level = 9.21

H_o rejected

Table 12A

Performance Classification of the Full-Time Students

Classification		GPA base	TPI base	Total
Dean's List	O	1,174	1,038	2,212
(3.25-4.00)	E	861.0	1,351.0	
	X	113.79	72.52	
Average level	O	1,283	1,807	3,090
(1.75-3.24)	E	1,203.0	1,887.2	
	X	5.32	3.41	
Probation level	O	85	454	539
(1.00-1.74	E	209.8	329.2	
	X	74.24	47.31	
Suspension level	O	10	705	715
(0.00-0.99)	E	278.3	436.7	
	X	258.66	164.84	
Total		2,552	4,004	6,556

Hypothesis (H_o) - There is no significant difference in the proportion of the full-time students who would be placed on the Dean's List, or in the proportion who would be considered to have achieved at an average, probation or suspension level for the two performance indexes.

Chi-square = 740.09

df = 3

Critical value for the .01 level = 11.34

H_o rejected

Table 13A

Performance Classifications of the Part-Time Students

Classification		GPA base	TPI base	Total
Honors list (3.50-4.00)	O	1,194	967	2,161
	E	1,053.3	1,107.7	
	X	18.79	17.87	
Average level (1.75-3.49)	O	1,730	1,281	3,011
	E	1,467.6	1,543.4	
	X	46.92	44.61	
Probation level (1.00-1.74)	O	253	372	625
	E	304.6	320.4	
	X	8.74	8.31	
Suspension level (0.00-0.99)	O	57	781	838
	E	408.5	429.5	
	X	302.45	287.67	
Total		3,234	3,401	6,635

Hypothesis (H_O) - There is no significant difference in the proportion of the part-time students who would be placed on the honors list, or in the proportion who would be considered to have achieved at an average, probation or suspension level for the two performance indexes.

Chi-square = 735.36

df = 3

Critical value for the .01 level = 11.34

H_O rejected

Table 14A

Grade Performance Level of the Less-Than-Part-Time Students

Grade level		GPA base	TPI base	Total
A (4.00)	O	1,090	939	2,029
	E	1,004.6	1,024.4	
	X	7.26	7.12	
B (3.00-3.99)	O	744	531	1,275
	E	631.3	643.7	
	X	20.12	19.73	
C (2.00-2.99)	O	383	223	606
	E	300.1	306.0	
	X	22.90	22.51	
D (1.00-1.99)	O	102	68	170
	E	84.2	85.8	
	X	3.76	3.69	
F (0.00-0.99)	O	173	780	953
	E	471.9	481.1	
	X	189.32	185.70	
Total		2,492	2,541	5,033

Hypothesis (H_o) - There is no significant difference in the proportion of the less-than-part-time students achieving at each grade performance level for the two performance indexes.

Chi-square = 482.11

df = 4

Critical value for the .01 level = 13.28

H_o rejected

APPENDIX F

QUESTIONNAIRE RESULTS

A copy of the questionnaire, in the format presented to the faculty, is in Appendix C. Forms were returned by 137 of the 202 full-time instructors employed during the Winter Term of 1979. Responses to the topics on the questionnaire ranged from 131 to 137. This appendix displays the number and percentage of the instructors who selected each of the alternatives. The responses that were grouped and the patterns among the topics, presented and discussed in Chapters 4 and 5, are also shown.

END-OF-TERM GRADES

At the present time, "W" grades are assigned if a withdrawal form is filed (by the student, the instructor or other college official) before the last two weeks of a regular term. Assuming that the "W" will continue to be used for this purpose, at the end of the term:

Percent	Number	
28.5%	39	instructors should be allowed to record only the "F" or "I" grade for their failing or in-progress students.
29.9% *	41	instructors should be allowed to record the "F," "I" or "W" grade for their failing or in-progress students, but the "W" should be coded (or a different letter used) to indicate that it was an end-of-course grade.
36.5% *	50	instructors should be allowed to record the "F," "I" or "W" grade for their failing or in-progress students.
5.1%	7	instructors should be allowed to record only the "I" or "W" grade for their failing or in-progress students.
100.0%	137	Total

* 66.4% favored the use of "F," "I" and "W" end-of-course grades.

COMPUTATION OF TERM AND CUMULATIVE GPA

In addition to the courses in which passing grades were earned ("A" through "D"), the following courses should be included in the computation of a student's grade point average.

Percent	Number	
6.0%	8	The GPA should be based on passing grades only. The courses for which "F," "I" and "W" (assigned at the end of the term) grades were recorded should be excluded.
48.1%	64	The courses for which "F" grades were recorded should be included. "I" and "W" (assigned at the end of the term) grades should be excluded.
18.8% *	25	The courses for which "F" and "W" (assigned at the end of the term) grades were recorded should be included. "I" grades should be excluded.
27.1% *	36	The courses for which "F," "I" and "W" (assigned at the end of the term) grades were recorded should be included.
100.0%	133	Total

* 45.9% said "F" and "W" grades should be included.

REPEATING COURSES

Students should be allowed to repeat a course in order to change their grade in the course:

Percent	Number	
21.5%	29	if the previous grade in the course was "F," "I" or "W."
45.9%	62	if the previous grade in the course was "D," "F," "I" or "W."
7.4%	10	if the previous grade in the course was "C," "D," "F," "I" or "W."
25.2%	34	if the previous grade in the course was "B," "C," "D," "F," "I" or "W."
100.0%	135	Total

If a course is repeated:

Percent	Number	
43.1%	56	only the last grade earned should be included in the computation of the GPA.
27.7%	36	only the highest grade earned should be included in the computation of the GPA.
29.2%	38	all grades earned in the course should be included in the computation of the GPA.
100.0%	130	Total

INCOMPLETE GRADES

The present BCC grading policy states that an "I" grade may be assigned if the required course work has not been completed at the end of the term.

It should be possible to change the "I" to a passing grade:

Percent	Number	
54.7%	75	no later than the end of the next regular term.
29.9%	41	no later than one year from the date the "I" grade was assigned.
5.1%	7	no later than two years from the date the "I" grade was assigned.
10.2%	14	any time the student has completed the course work--no time limit should be involved.
99.9%	137	Total

If there is a time limit beyond which an "I" grade cannot be changed to a passing grade, when that time has expired, the "I" grade should:

Percent	Number	
38.8%	52	be changed to an "F."
29.1%	39	be changed to a "W."
32.1%	43	remain on the record as an "I."
100.0%	134	Total

VARIABLE LENGTH COURSES

Do you teach individual progression or other variable length courses?

Percent	Number	
19.5%	26	Yes
80.5%	107	No
100.0%	133	Total

If yes, do you feel there is a need for an "in-progress" grade (other than "I") that could be assigned at the end of the term to show that the student is still enrolled and making adequate progress toward the completion of the course?

Percent	Number	
50.0%	13	Yes
50.0%	13	No
100.0%	26	Total

DEAN'S LIST AND HONORS

At the present time, full-time students (12 or more hours) must earn a term GPA of 3.25 or higher to be placed on the Dean's List. Part-time students (6 to 11 hours) must earn a term GPA of 3.50 or higher to be placed on the Honors List.

In computing the term GPA for this purpose, in addition to the passing grades:

Percent	Number	
30.6% *	41	all "F," "I" and "W" (assigned at the end of the term) grades should be included.
21.6% *	29	"I" grades should be excluded, but "F" and "W" (assigned at the end of the term) grades should be included.
43.3%	58	only the "F" grades should be included.
4.5%	6	only the passing grades should be included, all "F," "I" and "W" grades should be excluded.
100.0%	134	Total

* 52.2% approved including "F" and "W" grades.

In addition to the required term GPA, students should not be placed on the Dean's or Honors List if:

Percent	Number	
21.8% *	29	their term grade report includes any "F," "I" or "W" (assigned at the end of the term) grades or if the student withdrew or was withdrawn from any courses during the term.
18.8% *‡	25	their term grade report includes any "F," "I" or "W" (assigned at the end of the term grades.
18.8% *‡	25	their term grade report includes any "F" or "W" (assigned at the end of the term) grades.
40.6%	54	All students who meet the GPA requirement should be placed on the Dean's or Honors List. The existence of "F," "W" or "I" grades on the term grade report should not affect their eligibility.
100.0%	133	Total

* 59.4% agreed an "F" grade should disqualify.

‡ 37.6% checked that an end-of-term "W" should disqualify.

PROBATION

At BCC, students who have attempted 12 or more hours of course work and have a GPA of less than 1.75 are placed on academic probation.

Percent	Number	
16.3%	22	The practice of placing low achieving students on probation should be discontinued.
83.7%	113	Low achieving students should continue to be placed on probation.
100.0%	135	Total

Responses of those who favored discontinuing probation.

Being placed on academic probation is likely to:

Percent	Number	
4.5%	1	cause the student to work harder in an attempt to improve his/her grades.
31.8%	7	have little influence on the effort the student makes to improve his/her grades.
63.6%	14	discourage the student and decrease the likelihood that his/her grades will improve.
99.9%	22	Total

Responses of those who favored the use of probation.

Being placed on academic probation is likely to:

Percent	Number	
81.3%	87	cause the student to work harder in an attempt to improve his/her grades.
16.8%	18	have little influence on the effort the student makes to improve his/her grades.
1.9%	2	discourage the student and decrease the likelihood that his/her grades will improve.
100.0%	107	Total

Responses of those who favored discontinuing probation.

Being placed on academic probation is likely to:

Percent	Number	
4.5%	1	increase the possibility that the student will continue to attend college.
22.7%	5	have little affect on the student's decision to continue or stop attending college.
72.7%	16	decrease the possibility that the student will continue to attend college.
99.9%	22	Total

Responses of those who favored the use of probation.

Being placed on academic probation is likely to:

Percent	Number	
26.5%	27	increase the possibility that the student will continue to attend college.
52.9%	54	have little affect on the student's decision to continue or stop attending college.
20.6%	21	decrease the possibility that the student will continue to attend college.
100.0%	102	Total

Regarding counseling and testing services for the probation-level student:

Percent	Number	
47.4% *	63	the college should require all students achieving at the probation level to take diagnostic tests and talk with a counselor about the test results.
38.3% *	51	the college should contact each student performing at the probation level to offer diagnostic testing and counseling.
13.5%	18	the college should have diagnostic testing and counseling available for the probation level students who request it.
0.8%	1	there is no need to provide diagnostic testing and counseling services for probation level students.
100.0%	133	Total

* 85.7% agreed the college should take the initiative.

SUSPENSION

If the student has been given a reasonable period of time to improve his or her grades (probation) and is still not making adequate progress toward graduation:

Percent	Number	
61.8%	81	the student should be required to stop attending college for a designated period of time (suspended).
38.2%	50	the student should be allowed to continue to attend college.
100.0%	131	Total

GRADING METHODS

Which of the following best represents your grading technique?

The responses of the 119 (of 136 who responded to this topic) who checked a single grading method are shown below.

Percent	Number	
76.5%	91	(CR) Grades are based on the achievement level reached by the student compared to an absolute standard established for the course by the instructor (criterion referenced grading).
10.9%	13	(NR) Each student's achievement is evaluated and graded in terms of the relationship between that student's achievement and the performance of other students in the course (norm referenced grading).
10.9%	13	(CG) A specified amount of work is required for each letter grade. All students who satisfactorily complete the work receive the grade designated for that amount of work (contract grading).
1.7%	2	(IG) Grades are based on how much the student improved during the course (improvement grading).
-	0	(EG) Grades are based on how hard the student tried (effort grading).
100.0%	119	Total

The combinations of the grading methods selected by the 17 instructors who checked two or more grading methods are displayed below. Each vertical column represents the choices of one instructor.

	Combinations selected (N = 17)																	Involvement
CR	x	x	x	x	x	x	x	x	x	x	x	x	x					13/17 = 76.5%
NR	x	x	x			x					x	x	x	x	x			9/17 = 52.9%
CG						x	x				x	x	x	x				6/17 = 35.3%
IG				x			x	x	x	x	x	x	x		x	x	x	11/17 = 64.7%
EG					x			x	x	x		x	x		x	x	x	9/17 = 52.9%

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